SUUNTO M9i

USER'S MANUAL

SUUNTO

REPLACING LUCK.

CUSTOMER SERVICE CONTACTS

Suunto Oy	**Phone +358 9 875870**
	Fax +358 9 87587301
Suunto USA	**Phone 1 (800) 543-9124**
Canada	**Phone 1 (800) 776-7770**
European Call Center	**Phone +358 2 284 11 60**
Suunto Website	**www.suunto.com**

TABLE OF CONTENTS

1. INTRODUCTION 5
    1.1 CHECKLIST 5
    1.2 CARE AND MAINTENANCE 5
    1.3 WATER RESISTANCE 5
    1.4 CHARGING THE BATTERY 6
2. HOW TO USE YOUR SUUNTO M9i 7
    2.1 DISPLAY 7
        2.1.1 Mode Indicator 7
        2.1.2 Battery Indicator 7
        2.1.3 Alarm Symbol 8
        2.1.4 GPS Activity and Accuracy Bar Display 8
    2.2 BUTTONS 8
        2.2.1 Short and Long Press 8
        2.2.2 Start/Data Button 8
        2.2.3 Stop/Cancel Button 9
        2.2.4 Enter Button 9
        2.2.5 Arrow Buttons 10
    2.3 MENUS 10
        2.3.1 Basic Menu Structure 10
        2.3.2 Navigating in Menus 10
    2.4 Understanding GPS 12
        2.4.1Overview 12
        2.4.2 Line-of-sight Needed 12
        2.4.3 Accuracy 12
        2.4.4 GPS Usage 13
        2.4.5 Versatility 13
3. MODES 14
    3.1 GENERAL INFORMATION 14
    3.2 TIME MODE 14

3.2.1 Main Display 14
3.2.2 Stopwatch 15
3.2.3 Function Menu 15
3.2.4 Alarm 15
3.2.5 Time/Date 16
3.2.6 General 18
3.2.7 Units 20
3.3 WEATHER MODE 24
3.3.1 Main Display 24
3.3.2 Function Menu 24
3.3.3 Barometric Memory 24
3.3.4 Weather Alarm 25
3.4 COMPASS MODE 26
3.4.1 Main Display 26
3.4.2 Function Menu 27
3.4.3 Calibrate 27
3.4.4 Declination 28
3.5 SAILING MODE 29
3.5.1 Main Display 29
3.5.2 Function Menu 30
3.5.3 Tracking 30
3.5.4 Tracks 31
3.5.5 Race 32
3.6 NAVIGATION MODE 32
3.6.1 Main Display 32
3.6.2 Function Menu 34
3.6.3 Navigate 34
3.6.4 Routes 35
3.6.5 Race 38
3.7 RACING MODE 39

3.7.1 Main Display 39
3.7.2 Function menu 41
3.8 FUNCTION MENU 47
3.8.1 GPS 47
3.8.2 MOB 48
3.8.3 Memory Point 49
3.8.4 POSITION 49
3.8.5 WINDdir 50
4. ADDITIONAL FEATURES 51
4.1 PC INTERFACE 51
4.1.1 Transferring Data 51
4.1.2 PC software installation 51
4.2 SUUNTO SAIL MANAGER 52
4.2.1 Suunto Sail Manager Features 52
4.2.2 Changing the Suunto M9i Settings 53
4.3 WWW.SUUNTOSPORTS.COM 54
4.3.1 System Requirements 54
4.3.2 SuuntoSports.com Sections 54
5. TECHNICAL SPECIFICATIONS 57
6. GPS DATUM LISTING 58
7. GLOSSARY 66
8. USER'S RESPONSIBILITY 69
9. COPYRIGHT AND TRADEMARK NOTICE 69
9.1 PATENT NOTICE 70
10. CE COMPLIANCE 70
11. LIMITS OF LIABILITY AND ISO 9001 COMPLIANCE 70
12. AFTER SALES SERVICE 71
12.1 ONLINE WARRANTY REGISTRATION 71
13. DISCLAIMER 72
14. DISPOSAL OF THE DEVICE 73

1. INTRODUCTION

Congratulations, your newly purchased Suunto M9i is designed to provide years of enjoyment in your sailing activities.

Suunto M9i is a reliable high precision electronic instrument intended for recreational use.

NOTE: *Suunto M9i should not be substituted for acquiring measurements that require professional or industrial precision.*

1.1 CHECKLIST

After purchasing this instrument, make sure the package contains the following items:

- Suunto M9i
- Charger
- PC-interface and charging cable
- CD containing the Suunto Sail Manager software and Suunto M9i User's manual
- Suunto M9i User's Guide
- Suunto M9i Pocket Guide

Should any of these be missing from the package, contact the resale agent who sold you the package.

1.2 CARE AND MAINTENANCE

Only perform the procedures described in this manual. Never disassemble your Suunto M9i. Protect it from shocks, extreme heat and prolonged exposure to direct sunlight. If not in use, store your Suunto M9i in a clean and dry environment at room temperature.

Wipe your Suunto M9i clean with a lightly moistened (warm water) cloth. If there are stubborn stains or marks, you can apply mild soap to the area. Do not expose it to strong chemicals such as gasoline, cleaning solvents, acetone, alcohol, insect repellents, adhesives and paint, as they will damage the unit's seals, case and finish. Keep the area around the sensor free of dirt and sand. Never insert any objects into the sensor opening.

1.3 WATER RESISTANCE

Suunto M9i is water resistant. Its water resistance is tested to 100m/330ft according to ISO 2281 standard (www.iso.ch). This means that you can use the Suunto M9i for swimming or other water sport activities but it should not be used for scuba diving or freediving.

NOTE: *Do not push the buttons under any circumstances while swimming or in contact with water. Deliberate or unintentional depression of the buttons while the unit is submerged could cause the unit to malfunction.*

NOTE: *Large amounts of water and dirt under the cover of Suunto M9i may disturb the satellite signal reception.*

1.4 CHARGING THE BATTERY

Suunto M9i is equipped with an internal rechargeable battery. You can recharge the battery approximately 500 times. The life expectancy of a single charge depends on the use of the GPS, Compass and data storage functions. When the battery level indicator on the display reaches the red zone, the battery voltage is low. When this occurs, you should recharge the battery. However, extremely cold weather affects the battery voltage even when the battery is still fully operational.

If the battery warning indicator is activated in temperatures above 10°C (50°F), recharge the battery.

Do not attempt to change the battery, as this will void warranty. Take the Suunto M9i to an authorized Suunto dealer for a battery change.

You can charge the battery with either the included mains charger (universal mains voltage) or through your PC's USB connector. For other charging options see www.suunto.com.

Charging the battery with a mains charger

To charge the battery with a mains charger:

1. Plug the charger into the mains outlet and attach its data clip firmly to your Suunto M9i.
2. When the battery level indicator is full, disconnect the charger from the mains outlet. Your Suunto M9i is now ready for use.

Charging the battery through your PCs USB connector

To charge the battery through your PCs USB connector:

1. When your PC is on, plug the USB cable into the USB port and attach its data clip firmly to your Suunto M9i.

2. When the battery level indicator is full, disconnect the cable from the PC. Your Suunto M9i is now ready for use.

NOTE: *Heavy use of the GPS, backlight and compass will significantly reduce the battery life.*

WARNING

This Suunto product contains a Li-ion battery. To reduce the risk of fire or burns, do not disassemble, crush, puncture, short external contacts, or dispose of in fire or water. Only replace with manufacturer specified batteries. Recycle or dispose of used batteries properly.

2. HOW TO USE YOUR SUUNTO M9i

2.1 DISPLAY

2.1.1 Mode Indicator

On the left side of the display there is a mode indicator that shows the currently active mode. The mode indicator displays the modes from the top down in the following order: TIME, WEATHER, COMPASS, SAILING and NAVIGATION. The active mode is indicated by the moving segment next to the indicator bar. When the RACING mode is active, both the SAILING and the NAVIGATION segments are displayed.

2.1.2 Battery Indicator

On the right side of the display there is a battery indicator that shows the battery voltage. When the indicator is in the red zone, the battery needs recharging. When the battery is being recharged, the battery indicator moves up continuously until the battery is full, and the indicator is shown in full length.

2.1.3. Alarm Symbol

If a regular alarm or a Baro Alarm is activated, a rectangular symbol is displayed at the right side of the lower horizontal dot line.

2.1.4. GPS Activity and Accuracy Bar Display

When the GPS is set on, a dot bar display appears on the upper horizontal dot line of the display. When the GPS is on but does not have a fix, an empty rectangular dot is displayed. When the GPS has a fix, 1 to 5 filled rectangular dots are displayed. The amount depends on the fix quality. More dots represent better satellite coverage and signal reception.

2.2 BUTTONS

2.2.1 Short and Long Press

The buttons may have different functions depending on how long you press them.

The ordinary *press* or *short press* means that the button is pressed quickly.

The *long press* means that the button is pressed for more than 2 seconds.

2.2.2 Start/Data Button

Short Press

- In the Time mode, it starts the timing and records the split times.
- Activates the information displays in the Sailing, Navigation and Racing modes and in the MOB function. Returns to the main display from the Sailing, Navigation, Racing and MOB information displays.

Long Press

- Activates the backlight when the backlight is not set to the off position. The backlight stays on as long as a selection is active and 5 seconds after the last selection. For more information about backlight settings, see section 3.2.6.

2.2.3 Stop/Cancel Button

Short Press

- Returns to the previous menu level or to the previous selection *without accepting* the selection.
- In the main mode displays, it acts as a shortcut button that toggles the lowest field of the main display between three different alternatives. The selection stays active even if the mode or menu level is changed. Changing the shortcut in the Time mode is possible only after the Stopwatch has been reset.
- In the Time mode, it stops the timing and scrolls the split times on the display.

Long Press

- Returns to the main display of the current mode *without accepting* the last selection.
- In the Time/Stopwatch mode, it resets the stopwatch.

2.2.4 Enter Button

Short Press

- Moves to a lower menu level.
- Activates the Function menu in all the main modes.
- Records all the Function menu parameters in the temporary memory. The parameters are erased when the unit returns to the main mode, except for the one that has been confirmed by the user. For more information on the Function menu, see section 3.8, Function Menu.
- If the GPS is not active, it accesses the Function menu in order to turn the GPS on. Accepting any selection that requires GPS usage, also turns the GPS on.
- With two possible selections (e.g. light on/off), it activates the selection and accepts the selections made with the arrow keys.
- Accepts the selections made on the information displays and returns to the main display.

Long Press

- Moves to the Set menu from the main displays. (The individual Set menu names are identical to the mode names.)
- Accepts the selections made with the arrow keys and returns to the main display.

2.2.5 Arrow Buttons

Short Press

- Scroll the menus up and down.

Move between the main modes

- From the Racing mode, the *up* arrow navigates to the Sailing mode and the *down* arrow navigates to the Navigation mode.

NOTE: *You can only access the racing mode after you have activated it. (For more information on this, see sections 3.5.5 and 3.6.5 race.)*

- Change the values. The *up* arrow increases the value and the *down* arrow decreases the value. With two possible selections (e.g. light on/off), both arrows change the value.

2.3 MENUS

2.3.1 Basic Menu Structure

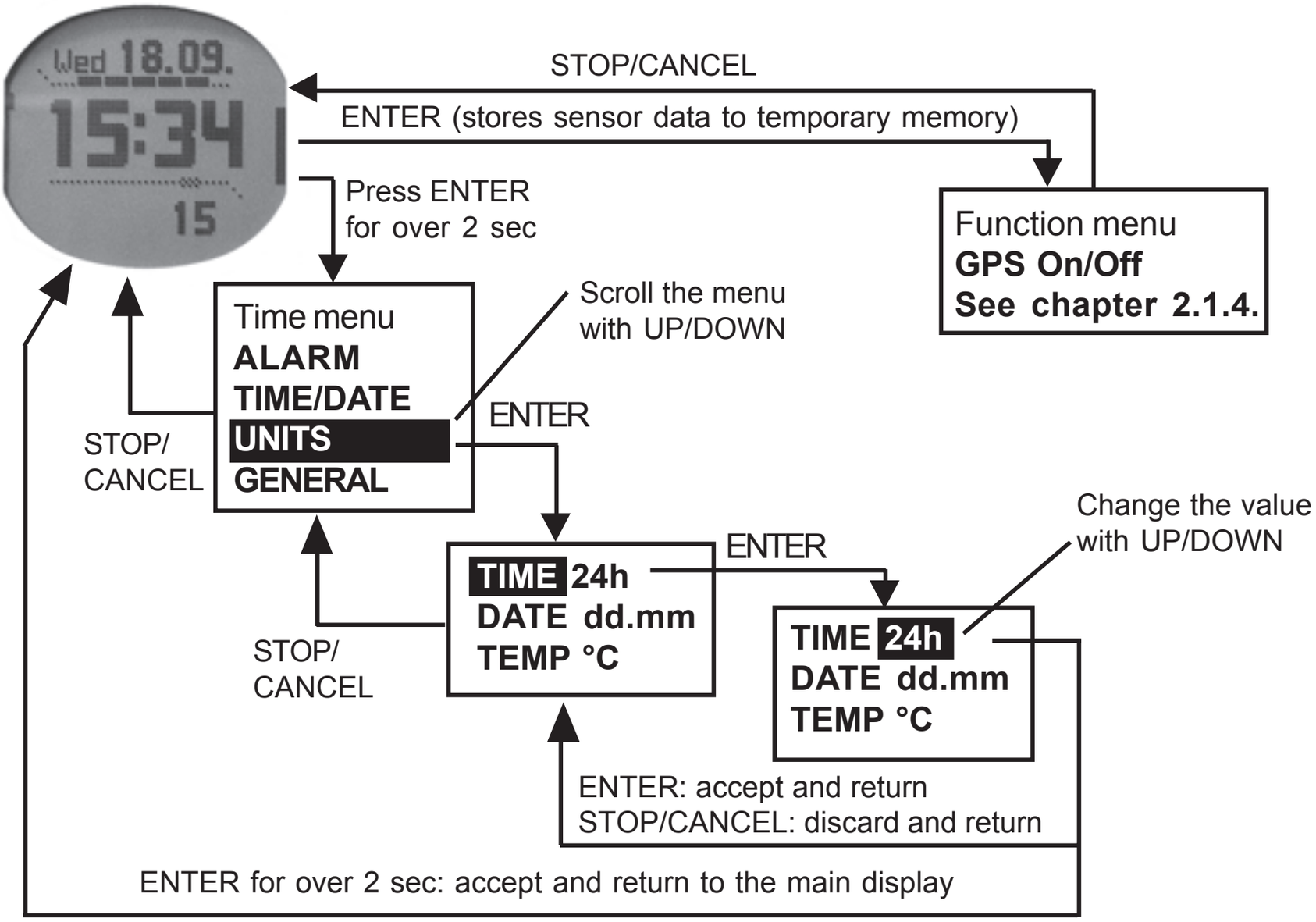
The menus are organized hierarchically under the modes. When you select a mode, first the name of the mode, then its main display appears. When you press the up or down arrow quickly, only the names of the modes are shown. When you long press *Enter* in the mode's main display, the mode's *Set menu* is displayed. The Set menu includes several functions, all of which include sub-functions or settings. This is called the hierarchical menu structure.

Always when you press *Enter* to enter into a submenu for performing setting, timer sync, MOB etc. the Suunto M9i records data like time, direction and position in the temporary memory The data is utilized in the Function menu features.

2.3.2 Navigating in Menus

The menu items can be scrolled with the *up* and *down* arrows located on the right side of Suunto M9i. Three menu items are displayed at the same time. The menu item that is currently active and can thus be selected is displayed in reversed color. The indicator bar on the left side of the display shows the active mode. To move deeper into the hierarchy, select a menu item and press *Enter*. To return one step up in the hierarchy, press *Stop/Cancel*. Remember that if you just press *Stop/Cancel*, the changes made in the menu are not saved. First you have to accept the changes with the *Enter* button.

If you want to return directly to the main display of the active mode, press either *Enter*



(saves the changes) or *Stop/Cancel* (discards the last change) for more than 2 seconds.

Suunto M9i has been designed to guide you as much as possible when you navigate in the menus. When you perform a function, Suunto M9i often returns automatically to the menu item you are likely to use next.

Short pressing *Enter* in any of the modes brings up the Function menu. The Function menu is almost identical in all the main modes. In the Function menu you can:

- Turn the GPS on or off manually (GPS On/Off)
- Record and store the coordinates of a Man Over Board situation (MOB)
- View the current position (Position)

- Store a memory point (MEMPoint)
- Store the wind direction (WIND DIR)

For more information on the Function menu, see section 3.8 Function Menu.

The Function menu of the Racing mode differs to a certain extent from other modes. For more information refer to the Racing mode section 3.7.2 Function menu.

2.4. UNDERSTANDING GPS

2.4.1. Overview

Suunto M9i uses Global Positioning System (GPS) in determining the user's position. GPS incorporates a set of satellites orbiting the Earth at an altitude of 20 000 km, at the speed of 4 km/s. The satellites send relatively weak radio signals at power levels comparable to normal household light bulbs. So, the GPS reception gets disturbed much more easily than, for example, cellular phone signal reception because the GPS signals that reach the Earth are thousands of times weaker than cell phone signals. However, due to the extreme sensitivity of the built-in GPS radio receiver, even the faintest signals can be picked up.

2.4.2. Line-of-sight Needed

To ensure a good position measurement, there must be a line-of-sight connection between the satellites and the receiver. This means that the objects or materials between the satellites and the GPS receiver must not excessively attenuate the signal. In practice, water-containing objects, such as people, trees or other dense vegetation, can cause problems. The signals will not penetrate rocks or buildings or any metallic materials. However, the receiver typically works well under relatively thin plastic, fabric or wooden covers, e.g. inside boats.

2.4.3. Accuracy

To calculate a position, a GPS receiver usually requires simultaneous reception from at least four satellites. The position accuracy typically increases with the number of satellites being tracked but the most important factor is actually the relative geometric position of the satellites. The best position estimate is obtained when satellites from different directions and angles can be tracked. In other words, the less obstructed the receiver's view of the sky, the better the accuracy.

The accuracy also improves with the number of measurements made on the same

spot, as some errors will be averaged out. Under all-in-view satellite conditions a global average horizontal positioning error is 7.8 meters (95% confidence level). However, depending on the satellite constellation and the distortion the GPS signal experiences when traveling through the ionosphere, the instantaneous accuracy can vary from a couple of meters to over ten meters. The vertical position estimate is roughly two times more inaccurate than the horizontal.

2.4.4. GPS Usage

When you turn on the GPS, the receiver starts searching for radio signals from the satellites and as soon as one is found, data starts flowing from the satellite to the receiver. The data includes a list of the satellite positions and the GPS time. The GPS time is highly accurate because each satellite has an atomic clock on board.

The data flows quite slowly and usually a little less than a minute is needed for the calculation of the first position estimate. To minimize the duration, you should maintain an unobstructed view of the sky right after turning on the GPS. You need the satellite positions and the GPS time before you can perform the actual position calculation and before the GPS becomes functional. After the first position fix has been established, it still takes additional 10 minutes before all relevant data has been received from the satellites. The position estimate accuracy improves during this time as more satellites can be used for position calculation.

The downloaded data is valid roughly for the next four hours during which the receiver starts more quickly, typically in less than 10 seconds if it was turned off in between.

You should turn off the GPS when you do not need it. This is because satellite tracking consumes large amounts of power. Suunto M9i uses the lowest power consuming GPS technology available but you should still turn off the GPS when you do not need it.

2.4.5. Versatility

The GPS system is run by the United States Department of Defense and has been fully operational since 1995. At least 24 operational satellites circle the globe every 12 hours in 6 orbital planes with 4 satellites per plane to provide a true global coverage. A worldwide ground control network monitors the health and status of the satellites. The system works 24 hours a day regardless of the weather. It can provide service to an unlimited number of users and it is free of charge.

NOTE: *The very first time you initiate the GPS, it will take longer than usual for the*

GPS to start, as it has no reference to its current location. This may also happen if the GPS has not been used for a long time.

Please activate your new Suunto M9i GPS at least once before sailing out. Subsequent GPS starts will take less time. To minimize the GPS initiation time, hold the unit steady in one position with the display facing up and make sure you are located in an open area so that the unit has a clear view to the sky. After starting the GPS (i.e. after it has a fix), the unit can be moved more freely without losing the connection to the satellites. The signal strength bar on the unit's display indicates the fix. (See section 2.1.4, GPS Activity and Accuracy Bar Display)

3. MODES

3.1 GENERAL INFORMATION

Suunto M9i has six different modes: Time, Weather, Compass, Sailing, Navigation and Racing. You can switch between the modes with the arrow buttons. Each mode has several sub-modes. The mode indicator on the left side of the display indicates the active mode.

3.2 TIME MODE

3.2.1 Main Display

When you select the Time mode, the main display opens.

The main display has three rows:

Date

The first row displays the date in the selected format. For more information about changing the date format, see section 3.2.7 Units.

Time

The second row displays the time in the selected format. For more information about changing between 12- and 24-hour displays, see section 3.2.7 Units.

Shortcuts

The third row displays either the stopwatch, the seconds or Dual time. To switch between these, *short* press *Stop/Cancel*.

- **Seconds:** Displays seconds.
- **Dual time:** Displays the dual time if it has been set. For more information on setting the dual time, see section 3.2.5 Time/Date.
- **Stopwatch:** (For information on operating the stopwatch, see section 3.2.2 below.)

3.2.2 Stopwatch

Press *Start/Data* to start the timing. If you want to view a split time, press *Start/Data* again. The time stops for three (3) seconds to show the split time and then returns to showing the running time.

Press *Stop/Cancel* to stop the timing. After the timing has been stopped, you can scroll the split times with *Stop/Cancel*.

To reset the timer, *long* press *Stop/Cancel*. If the stopwatch has not been reset after stopping the timing, press *Start/Data* to continue the timing.

Suunto M9i can display up to 29 split times.

NOTE: *When you have used the stopwatch, you cannot select other shortcuts before resetting the timer.*

NOTE: *The maximum time you can record with the stopwatch is 10 hours.*

3.2.3 Function Menu

For more information on the Function menu, see section 3.8 Function Menu.

3.2.4 Alarm

You can set altogether three independent alarms. When the alarm is set, the alarm symbol appears on the display.

Activating alarms

To activate an alarm:

1. In the Set menu, *Alarm* is already the first menu item. Short press *Enter* to select it. The alarm menu displays the status of the alarms. When you open the menu for the first time, the alarm indicators are set to *off* as default.
2. Scroll to the alarm you want to set and short press *Enter*. The alarm information is displayed and the on/off indicator is displayed as active (in reversed color). When you open the alarm information for the first time, the time is 0:00.

3. Press either the *up* or *down* arrow to change the alarm status to *on*.
4. Short press *Enter*. The alarm indicator changes to *on* and the hour selection is activated.
5. Set the correct *hour* with the arrow buttons and short press *Enter*. The minute selection is activated.
6. Set the correct *minutes* with the arrow buttons and short press *Enter*. The alarm is now set.

Deactivating alarms

To deactivate the alarm:

1. In the Set menu, *Alarm* is already the first menu item. Short press *Enter* to select it.
2. Scroll to the alarm you want to set off and short press *Enter*. The alarm information is displayed and the On/Off indicator is displayed in reversed color.
3. Press either the *up* or *down* button to change the alarm status to *off* and short press *Enter*. The alarm symbol disappears from the display.

Acknowledging alarms

When you hear the alarm, you can acknowledge it by pressing any of the Suunto M9i buttons.

3.2.5 Time/Date

The current time is visible on the second row of the Time mode's main display.

Dual time allows you to keep track of another time, for example, another time zone when you are traveling. The dual time is displayed on the third row of the Time mode's main display as a shortcut. To scroll to the dual time shortcut, press *Stop/Cancel* in the Time mode's main display.

NOTE: *The GPS checks and sets the correct time and date when activated if the Sync function is on. You can change the UTC time offset in the Time/Date feature of the Set menu or in the PC. You must always change the Dual time manually.*

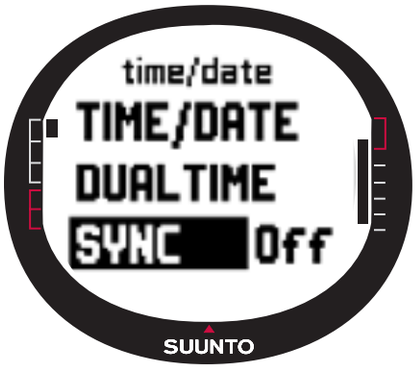
Off	GPS does not affect the time settings
On	GPS sets the time but does not update the time zone (uses the UTC offset set in the device or the Suunto Sail Manager)

Sync

You can set the GPS time synchronization on or off.

To set the time synchronization:

1. In the Set menu, scroll to *Time/Date* and short press *Enter*.
2. Scroll to *Sync* and short press *Enter*. The *On/Off* selection is activated.
3. Change the *On/Off* status with the arrow buttons and short press *Enter*. The time synchronization is now set. You return to the Set menu.

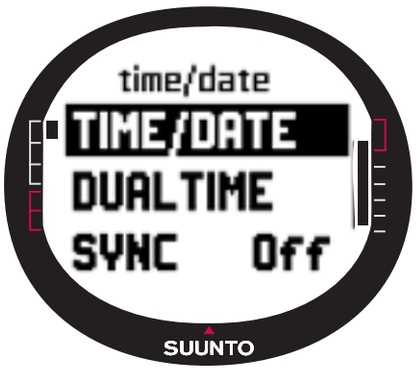


NOTE: *The time is synchronized each time the GPS is activated and it makes the first fix. The time is not updated continuously.*

Setting the time and the dual time

To set the time and the dual time:

1. In the Set menu, scroll to *Time/Date* and short press *Enter*. The menu with the options *Time/Date* and *Dual time* is displayed.



2. Scroll to either *Time/Date* or *Dual time* and short press *Enter*. The *hour* selection is activated.

NOTE: *If the time is displayed as a 12-hour clock, the symbol AM or PM is displayed on left side of the last row. For dual time, the AM/PM-symbol is displayed on the right side of the time. (For more information on the 12/24-hour clock, see section 3.2.7 Units.)*

3. Change the *hour* with the arrow buttons and short press *Enter*. The *minute* selection is activated.
4. Change the *minutes* with the arrow buttons and short press *Enter*. The *second* selection is activated.
5. When you press the down arrow button, the seconds are zeroed. If you want to set specific seconds, press the up arrow button and the seconds start running. When the settings are correct, short press *Enter*. The *date* selection is activated.
6. Change the *date* with the arrow buttons and short press *Enter*. The *month* selection is activated.
7. Change the *month* with the arrow buttons and short press *Enter*. The *year* selection is activated.
8. Change the *year* with the arrow buttons and short press *Enter*. You automatically return to the Set menu.

NOTE: *When you set the seconds for the time, they are automatically updated in the dual time as well.*

3.2.6 General

The General function includes the general settings for using your Suunto M9i.

Setting the light

Light means the backlight of the Suunto M9i display. Light has three possible settings:

- **Normal:** The light switches on when you press *Start/Data* for more than 2 seconds. The light is on for 5 seconds after the last press of any button.
- **Off:** The light does not switch on from any button.
- **Night Use:** The light switches on when you press any of the buttons and stays on for 5 seconds after the last press of a button.

To change the light setting:

1. In the Set menu, scroll to *General* and short press *Enter*. The General menu is displayed.
2. *Light* is already the first menu item. Short press *Enter* to select it. The current light setting is displayed in reversed color.
3. Select the suitable light setting with the arrow buttons and short press *Enter*. The light settings are now ready and you return to the Set menu.

Setting the brightness

This setting adjusts the brightness of the Suunto M9i backlight. The brightness is measured on a scale of 1 to 6. Brighter displays consume more battery power.

To change the brightness:

1. In the Set menu, scroll to *General* and short press *Enter*. The General menu is displayed.
2. Scroll to *Bright* and short press *Enter*. The brightness setting is activated.
3. Change the value with the arrow buttons and short press *Enter*. The brightness is set and you return to the Set menu.

NOTE: *The default brightness setting is 3.*

Setting the contrast

This setting adjusts the contrast of the Suunto M9i display. The contrast is measured on a scale of 1 (minimum) to 9 (maximum). The maximum contrast setting consumes more power than the minimum setting.

To change the contrast:

1. In the Set menu, scroll to *General* and short press *Enter*. The General menu is displayed.
2. Scroll to *Contrast* and short press *Enter*. The contrast setting is activated.
3. Change the value with the arrow buttons and short press *Enter*. Contrast is now set.

NOTE: *The default contrast setting is 4.*

Setting the tones

Tones are the sounds that indicate that you have successfully pressed the buttons. The tones can be set to the on or off position.

To set the tones on or off:

1. In the Set menu, scroll to *General* and short press *Enter*. The General menu is displayed.
2. Scroll to *Tones* and short press *Enter*. The On/Off field is activated.
3. Change the value of the field to either *on* or *off* with the arrow buttons and short press *Enter*. The tones are now set.

NOTE: *The default setting is On.*

Setting the display information

The display information that shows the names of the modes can also be turned on or off.

To turn the display information on or off:

1. In the Set menu, scroll to *General* and short press *Enter*. The General menu is displayed.
2. Scroll to *Info* and short press *Enter*. The display information setting is activated.
3. Turn the display information *on* or *off* with the arrow buttons and short press *Enter*. The display information is now set.

3.2.7 Units

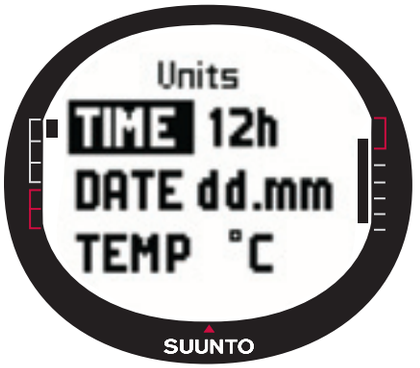
This menu includes the units and format settings that are used with all the Suunto M9i functions. The unit settings affect the way information is displayed in all the Suunto M9i modes.

Setting the time format

The time format setting defines whether the 12h or the 24h format is used.

To change the time format:

1. In the Set menu, scroll to *Units* and short press *Enter*. The Units menu is displayed.
2. Scroll to *Time* and short press *Enter*. The time format field is activated.
3. Select the correct time format with the arrow buttons and short press *Enter*. The time format is now set.



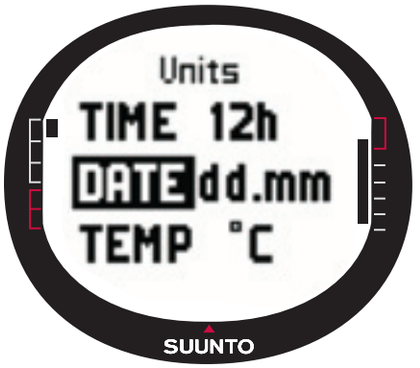
Setting the date format

The date settings define the format in which the date is displayed. The possible formats are:

- **DD.MM:** Day before the month, e.g. 27.11.
- **MM.DD:** Month before the day, e.g. 11.27.

To change the date format:

1. In the Set menu, scroll to *Units* and short press *Enter*. The Units menu is displayed.
2. Scroll to *Date* and short press *Enter*. The date format field is activated.
3. Select the correct date format with the arrow buttons and short press *Enter*. The date format is now set.

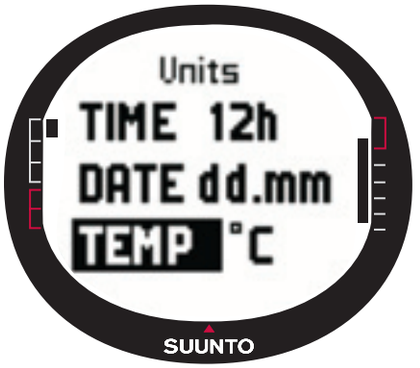


Setting the temperature unit

The *Temp* setting defines the unit in which the temperature is displayed. The options are Celsius (°C) and Fahrenheit (°F).

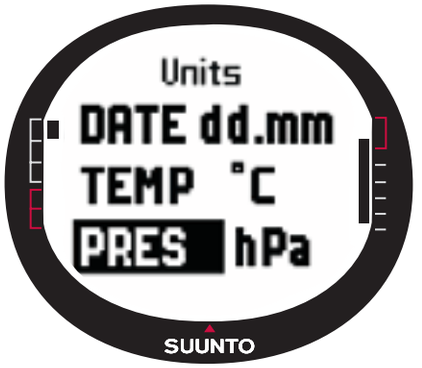
To change the temperature unit:

1. In the Set menu, scroll to *Units* and short press *Enter*. The Units menu is displayed.
2. Scroll to *Temp* and short press *Enter*. The temperature unit field is activated.
3. Select the correct unit with the arrow buttons and press *Enter*. The temperature unit is now set.



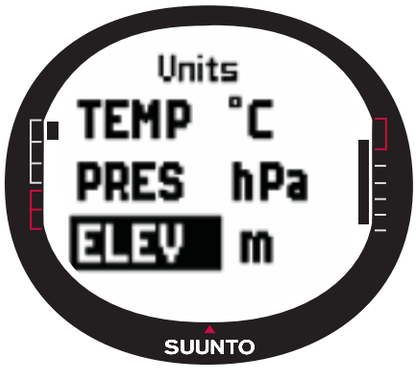
Setting the air pressure unit

The Pres setting defines the unit in which the air pressure is displayed. The options are *hPa* and *inHg*.



To change the air pressure unit:

1. In the Set menu, scroll to *Units* and short press *Enter*. The Units menu is displayed.
2. Scroll to *Pres* and short press *Enter*. The air pressure unit field is activated.
3. Select the correct unit with the arrow buttons and short press *Enter*. The air pressure unit is now set.



Setting the elevation unit

The *Elev* setting defines the unit in which the elevation is displayed. The options are meters (m) and feet (ft).

To change the elevation unit:

1. In the Set menu, scroll to *Units* and short press *Enter*. The Units menu is displayed.
2. Scroll to *Elev* and short press *Enter*. The elevation unit field is activated.
3. Select the correct unit with the arrow buttons and short press *Enter*. The elevation unit is now set.

NOTE: *Elevation is displayed only in position display as GPS elevation.*

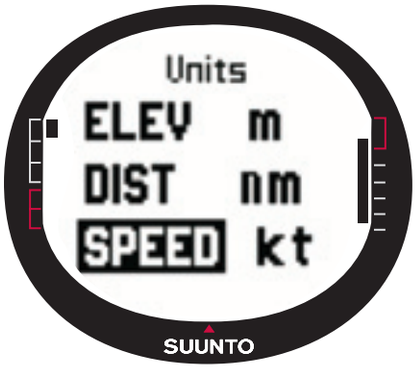
Setting the distance unit

The *Dist* setting defines the unit in which the distance is displayed. The units are kilometers (km), miles (mi) and nautical miles (nm). The short distance units are meters (m), feet (ft) and yards (yd); set separately using the Suunto Sail Manager software.

To change the distance unit:

1. In the Set menu, scroll to *Units* and short press *Enter*. The Units menu is displayed.
2. Scroll to *Dist* and press *Enter*. The distance unit selection is activated.
3. Select the distance unit with the arrow buttons and short press *Enter*. The distance unit is now set.

Setting the speed unit



The *Speed* setting defines the unit in which the speed is displayed. The options are kilometers per hour (km/h), miles per hour (mph), knots (kt) and meters per second (m/s).

To change the speed unit:

1. In the Set menu, scroll to *Units* and short press *Enter*. The Units menu is displayed.
2. Scroll to *Speed* and short press *Enter*. The speed unit field is activated.
3. Select the correct unit with the arrow buttons and short press *Enter*. The speed unit is now set.

Setting the position format

The *Position* setting defines the format in which position is displayed. The possible formats are degrees (deg), and degrees and minutes (dm), for example, 60.50000° or 60°30.000’ respectively.

To change the position format:

1. In the Set menu, scroll to *Units* and short press *Enter*. The Units menu is displayed.
2. Scroll to *Position* and short press *Enter*.
3. Select the correct format with the arrow buttons and short press *Enter*. The position format is now set.

NOTE: *All positions are stored in WGS84 format in the Suunto M9i memory. The position format setting refers only to the coordinates in the position display.*

Setting the datum

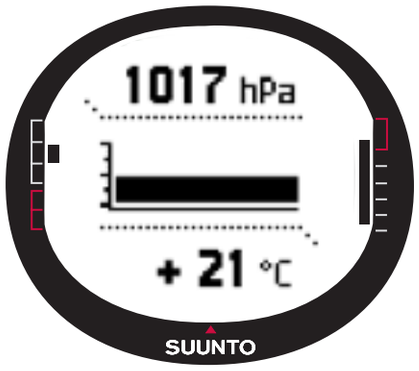
The *Datum* setting defines the map datum you use. (For more information on different datums and their corresponding numbers, see the *GPS Datum Listing* appendix.)

To set the datum:

1. In the Set menu, scroll to *Units* and short press *Enter*. The Units menu is displayed.
2. Scroll to *Datum* and short press *Enter*.
3. Select the correct datum number with the arrow buttons and short press *Enter*. The datum format is now set.

Setting the wind unit

The wind unit is set using the PC-interface. The options are knots (kt) and meters per second (m/s). For more information, refer to the Suunto Sail Manager Help.



3.3 WEATHER MODE

3.3.1 Main Display

When you select the Weather mode, the main display opens. The main display has three rows:

Absolute air pressure

The first row displays the absolute air pressure.

Air pressure graph

The second row shows a graphical presentation of the air pressure development during the last 6 hours in 15-minute intervals.

Shortcuts

The third row shows alternatively the temperature or the current time.

Change the displayed information with *Stop/Cancel*.

- **Temperature:** Displays the temperature in the selected unit. (For more information on defining the temperature unit, see section 3.2.7 Units.)
- **Time:** Displays the current time.

3.3.2 Function Menu

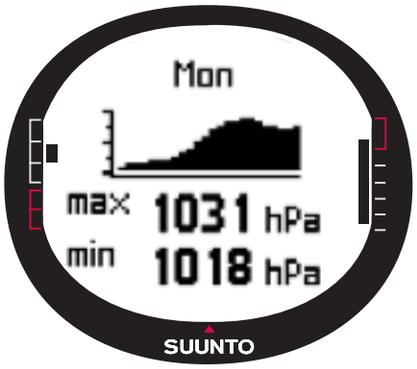
For more information on the Function menu, see section 3.8 Function Menu.

3.3.3 Barometric Memory

Barometric memory stores weather-related information from the last 7 days/168 hours. Each day is displayed individually.

To view the weather information stored in the memory:

1. In the Set menu, scroll to *Baro mem* with the arrow buttons and short press *Enter*. The first information page is displayed, and you can view the following information:
   • Day
   • A graphical presentation of the air pressure during the period measured
   • Maximum air pressure during the period measured.
   • Minimum air pressure during the period measured.
2. Scroll the information with the arrow buttons. The *up* arrow scrolls forward and the *down* arrow backward.
3. To stop viewing the memory content, press either *Enter* or *Stop/Cancel* at any time.



3.3.4 Weather Alarm

When active, the weather alarm informs you if the air pressure drops more than 4 hPa (0,118 inHg) in 3 hours.

To activate or deactivate the weather alarm:

1. In the Set menu, scroll to *Baro Al* with the arrow buttons. The current status of the alarm can be seen in the Set menu.
2. Short press *Enter.* The on/off field is activated.
3. Change the field to either *on* or *off* with the arrow buttons and short press *Enter*.

When the weather alarm goes on, the message "WEATHER ALARM ACTIVATED" is displayed. If the backlight is set to Night Use, also the backlight goes on. To acknowledge the weather alarm, press any button.

3.4 COMPASS MODE

Suunto M9i includes Suunto 9-series electronic compass.

The unit must be kept horizontally to guarantee correct compass reading.

3.4.1 Main Display

When you select the Compass mode, the main display opens. The compass displays the heading with the bearing value and cardinal points above.

The magnetic sensor of the compass functions for 45 seconds at a time. After this period the compass goes into the power-saving mode and the message "START COMPASS" is displayed. To activate the compass again, press *Start/Data*.

The main display has three rows:

Cardinal points: The first row displays the cardinal and half-cardinal point abbreviations.

Bearing: The second row displays the bearing in degrees.

Shortcuts:

- **Bearing Lock:** This feature helps you follow a certain bearing. Rotate your Suunto M9i horizontally until the desired bearing is displayed on the second row and press *Start/Data*. Press *Start/Data* again to select a new bearing. The bottom row displays the degree deviation, to the left or right, from the target bearing.
- **Time:** Displays the current time.
- **Bearing:** If you are navigating a route from the Navigation menu, the third shortcut displays the bearing to the next waypoint. If you have not activated a route and the GPS is on, the shortcut displays the bearing to the position of the initial GPS fix. If the GPS is not on, the shortcut displays the latest value when the GPS was on.

Note! *Always before using compass, make sure its calibration is valid by rotating the unit horizontally and observing the readings changing in the correct way. If in doubt perform the user calibration according to the instructions. See section 3.4.3 Calibrating the Compass.*

3.4.2 Function Menu

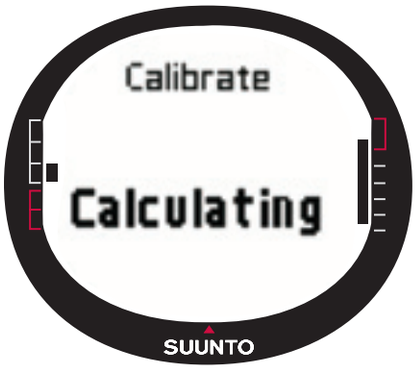
For more information on the Function menu, see section 3.8 Function Menu.

3.4.3 Calibrating the Compass

You should calibrate the compass if it does not seem to work well, for example, when it displays the wrong compass heading or the heading changes too slowly. Strong electromagnetic fields, such as electric lines, loudspeakers and magnets, can affect the compass operation. Therefore you should calibrate the compass if your Suunto M9i has been exposed to these fields.

NOTE: *Calibrate the compass before using it for the first time, and before you leave for an extended outdoor activity.*

NOTE: *Remember to hold the Suunto M9i level in the plane of calibration during the calibration sequence.*



To calibrate the compass:

1. In the Set menu scroll to *Calibrate* and short press *Enter*.
2. Hold the Suunto M9i horizontally level and rotate it 360 degrees for 30 seconds.
3. When the calibration is finished, you return to the Set menu.

3.4.4 Declination

You can set the compass declination manually or with the GPS.

Setting the compass declination manually

To set the compass declination manually:

1. In the Set menu, scroll to *Declination* and short press *Enter*. The declination setting field is activated, and you can now set the declination to *On*, *Off* or *Auto*.
2. Select *On* to set the compass declination manually and short press *Enter*.
3. The direction field is activated. Select East/West with the arrow buttons and short press *Enter*.
4. The degree field is activated. Change the degrees with the arrow buttons and short press *Enter*.
5. The declination is now set and you return to the Set menu.

Off	Compass points to the magnetic north
On	Compass points to the geographic north based on the manually set declination
Auto	Compass points to the geographic north based on the declination from the GPS database value for the current location

Setting the compass declination with the GPS

To set the compass declination with the GPS:

1. Scroll to *Declination* and short press *Enter*. The manual/automatic field is activated.
2. Select *Auto* with the arrow buttons and short press *Enter*. The GPS automatically sets the compass declination.

NOTE: *The GPS declination database is based on a global 4-degree latitude x 4-degree longitude grid.*

3.5 SAILING MODE

3.5.1 Main Display

When you select the Sailing mode, the main display opens. The main display has three rows:

Heading: The first row displays the heading in degrees.

Speed: The second row displays the vessel's speed in the unit of your choice.

Shortcuts:

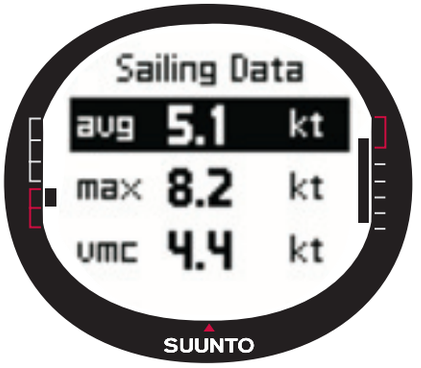
The third row shows alternatively the time or the distance from start or the average speed. Change the displayed information with *Stop/Cancel*. You can select a shortcut from the Sail Data display to replace the average speed.

- **Distance from start (dfs):** Displays the distance from start in the selected unit.
- **Time from start (tfs):** Displays the time from start.
- **Average speed (avg):** Displays the average speed in the selected unit.

Sailing Data display

The Sailing, Navigation and Racing modes and the MOB function have special information displays that can be accessed from the main display of each respective mode.

To view the Sailing Data display:



1. Press *Start/Data* in the Sailing display. The Sailing Data display opens. The active shortcut is displayed in reversed color.
2. Scroll the data with the arrow buttons. The list contains the following items:
   - Average speed (avg)
   - Maximum speed (max)
   - Velocity made on course (vmc)
   - Velocity against wind (vaw)
   - Distance to waypoint (dtw)

- Distance to finish (dtf)
- Distance made on course (dmc)
- Distance made good (dmg)
- Estimated time of arrival (eta)
- Estimated time enroute (ete)
- Time of sunrise (tsr)
- Time of sunset (tss)
- Distance to lay line (dll); works only in Racing mode
- Time to lay line (tll); works only in Racing mode

3. To set one of these items as a shortcut, select the item and short press *Enter*. If you do not want to change the shortcuts, press *Start/Data* to return to the Sailing display.

NOTE: *When you set a new shortcut in the Sailing Data display, the same shortcut is also displayed in the Navigation and the Racing modes.*

3.5.2 Function Menu

For more information on the Function menu, see section 3.8 Function Menu.

3.5.3 Tracking

The tracking function stores the vessel's position heading and speed in the Suunto M9i memory between a selected time period. You can only set the tracking function on or off. If you wish to alter the time period, you need to do it in the Suunto Sail Manager software.

NOTE: *When tracking is on and the GPS is activated, an indicator is displayed in the middle of the lower horizontal dotted line of the display.*

To set the tracking function on or off:

1. In the Set menu, scroll to *Tracking* and short press *Enter*. The On/Off field is activated.
2. Change the setting to *On* or *Off* with the arrow buttons and short press *Enter*. The tracking is now set.

3.5.4 Tracks

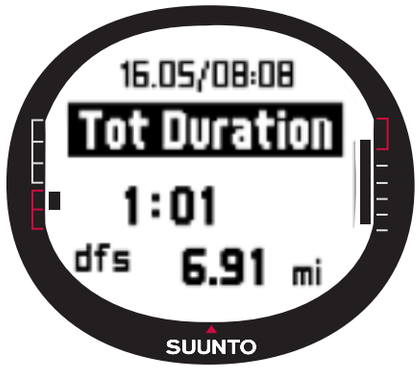
The Tracks function is used to view the information recorded with the Tracking function.

Viewing the recorded tracks

To view the recorded tracks:

1. In the Set menu, scroll to *Tracks* and short press *Enter*. A list of all the recorded tracks is displayed. The latest track is displayed in reversed color.
2. Select a track with the arrow buttons and short press *Enter*. The following information is displayed:
   - Start time and coordinates.
   - Finish coordinates.
   - Total duration of the track in hours and minutes, and the length of the track in selected units.
   - Maximum and average speed during the track.
   - The number of recorded memory points. If the track has been recorded on a route created earlier, the number of navigated waypoints is also displayed. See *Creating a route* in section 3.6.4. Routes.

3. Long press *Enter* to exit the Tracks function.



3.5.5 Race

When you select *Race*, Suunto M9i switches into the Racing mode. (For more information on the Racing mode, see section 3.7.)

To select the Racing mode:

1. In the Set menu, scroll to *Race* and press *Enter*. The On/Off selection is activated.
2. Set the race function *On* with the arrow buttons and press *Enter*. The Racing mode is activated and you return to the Sailing menu.

3.6 NAVIGATION MODE

3.6.1 Main Display

When you select the Navigation mode, the main display opens. Suunto M9i displays the direction to the destination with a circle on the outer rim of the display. The upper part of the display shows fixed sighting marks and a bearing indicator represented by a circle. When the bearing indicator is inside the sighting marks, you are moving in the direction of the set bearing.

The bearing indicator moves in a 120-degree arc in the upper part of the display. If the direction of the unit deviates more than this from the tracked bearing, the unit prompts the direction where to turn the unit with arrows. Once the circle appears on top of the display, the accurate bearing can be tracked again.

The main display has three rows:

Waypoint/Route: When Navigate is *on*, the first row displays the name and number of the navigated *waypoint*. If Navigate is *off*, the name of the activated *route* is displayed.

Heading/Length: When Navigate is *on*, the second row displays the heading in degrees. If Navigate is *off*, the total length of the activated route is displayed.

NOTE: *If the GPS is off the unit always displays the selected route and total length.*

Shortcuts:

The third row shows alternatively the bearing, speed, average speed or memory status. Change the displayed information with *Stop/Cancel*. You can select a shortcut from the Sailing or Racing Data display to replace the average speed.

- **Bearing (bea):** Displays the bearing to the next waypoint in degrees.
- **Speed (spd):** Displays the vessel's speed in the selected unit.
- **Average speed (avg):** Display's the vessel's average speed in knots.
- **Memory status (mem):** Displays the percentage of free memory space.

If the GPS is *off*, the shortcuts display the latest values when the GPS was *on*.

When Navigate is *off* but the GPS is *on*, the shortcut values refer to the starting point where the GPS had its initial fix.

NOTE: *A rectangular indicator is displayed on the left side of the lower horizontal dotted line of the display when Navigate is on.*

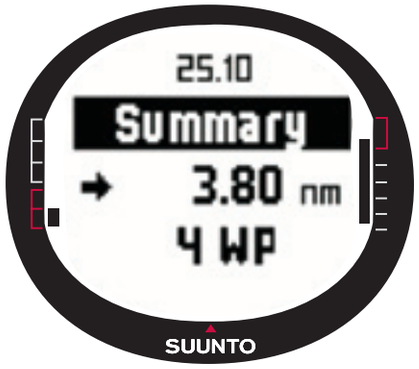
Navigation Data display

The Sailing, Navigation and Racing modes and the MOB function have special information displays that you can access from the main display of the respective mode. The Navigation data display shows either Waypoint information or a summary of the route. To activate the display, press *Start/Data* in the Navigation display.

When Navigation is *on*, the Navigation Data display shows Waypoint information on four rows:

Route: The first row displays the name of the route.

Waypoint: The second row displays the name and number of the waypoint being navigated. You can scroll the waypoints with the arrow buttons. Long press *Enter* to activate the selected waypoint. Suunto M9i begins displaying the navigation data to the new waypoint. The active waypoint is indicated with reversed color symbol.



Distance: The third row displays the distance from the previous waypoint. When the active waypoint is displayed the unit displays distance from the current location.

Bearing (bea): The non-active waypoints indicate only bearing.

Estimated time enroute (ete): Displays the ETE to the active waypoint at current speed.

The summary contains the following information:

Route: The first row displays the name of the route.

Length of the route: The second row displays the length of the route from the first waypoint to the last in nautical miles.

Number of waypoints: The third row displays the total number of waypoints on the route.

NOTE: *When the GPS is on, the unit displays active waypoint when entering information display. If GPS is off, route summary is displayed.*

3.6.2 Function Menu

For more information on the Function menu, see section 3.8 Function Menu.

3.6.3 Navigate

The Navigate function starts the navigation and lets you choose the preferred way of navigating through a route or to a single waypoint.

To start Navigation:

In the Set menu, *Navigate* is already the first menu item. Short press *Enter* to select it. Now you can choose one of the four options marked by symbols next to the *Navigate* item by short pressing *Enter*:

Right arrow: Activates the route for navigating in the correct order, from beginning or active waypoint to the end

Left arrow: Activates the route for navigating in the reversed order, from the end or from the active waypoint to the beginning

Dot: Activates the navigation to a single chosen waypoint on the selected route

Dash: Selected route is not active and activates the navigation to the location of the first GPS fix after turning on the GPS, instead of from the route start point

NOTE: *When navigating to a single waypoint, the unit does not automatically change to the next waypoint. This must be done manually. In normal route navigation, the unit automatically switches to the next waypoint when the vessel arrives inside a radius of 50 meters of the waypoint or passes at a distance larger than 100 meters of the perpendicular line to the route that goes through the waypoint.*

3.6.4 Routes

The Routes menu contains information on the routes recorded in the Suunto M9i memory. The routes and their individual waypoints can be viewed, edited and erased.

Creating a new route

To create a new route:

1. In the Set menu, scroll to *Routes* and short press *Enter*.
2. Scroll to *Create* and short press *Enter*.
3. The last GPS fix is displayed on the screen. Change the coordinates with the arrow buttons and short press *Enter* to confirm the selections. The next waypoint field is activated.
4. If you do not wish to change a coordinate, accept it with the *Enter* button.
5. Press *Stop/Cancel* to go back to a coordinate you wish to change.
6. Press *Enter* to scroll the next waypoint.
7. Long press *Enter* to confirm the new route and return to the Navigation display.

Selecting a route

To select a route for navigation:

1. In the Set menu, scroll to *Routes* and press *Enter*. The message "LOADING ROUTELIST" is displayed, and then the list is displayed.
2. Select a route with the arrow buttons and long press *Enter* to activate it.

NOTE: *Long pressing Enter activates the selected route. Short pressing Enter displays the route menu of the selected route.*

Creating a new waypoint to a route

With this function you can add new waypoints to previously created routes.

To create a new waypoint:

1. In the Set menu, scroll to *Routes* and short press *Enter*. The Route list is displayed.
2. Scroll the list with the arrow buttons and select a route by short pressing *Enter*.
3. In the route menu, scroll to *Create WP* with the arrow buttons and short press *Enter*.
4. The new waypoint of the route is displayed. *Enter* the number of the waypoint on the route and the coordinates with the arrow buttons. Short press *Enter* to confirm the new waypoint.
5. To stop creating a new waypoint, short press *Stop/Cancel* and you return to the Set menu.

Erasing a route

To erase a route:

1. In the Set menu, scroll to *Routes* and short press *Enter*. The Route list is displayed.
2. Scroll the list with the arrow buttons and select a route to erase and short press *Enter*.
3. In the route menu, scroll to *Erase* and short press *Enter*.
4. Suunto M9i displays the message "ERASING ROUTE"; you return to the routes menu.

Viewing and erasing route waypoints

To view or erase route waypoints:

1. In the Set menu, scroll to *Routes* and short press *Enter*. The Route list is displayed.
2. Select a route with the arrow buttons and short press *Enter* to view the route information. A list of waypoints is displayed.
3. The first waypoint is displayed in reversed color. Select a waypoint with the arrow buttons and short press *Enter*.
4. The waypoint menu is displayed. *View* is already the first menu item. Short press *Enter* to select it. The following waypoint information is displayed:
   - **Bearing and distance to the waypoint:** The bearing and distance to the waypoint are displayed from the previous waypoint, or if the GPS is active, from the current location.
   - **Waypoint coordinates:** The coordinates of the selected waypoint.
5. Short press *Stop/Cancel* to exit the waypoint information and return to the waypoint list.
6. To erase a waypoint, scroll to *Erase* in the waypoint menu and short press *Enter*. Suunto M9i displays the message "ERASE WAYPOINT?" Short Press *Enter* to confirm the action. You return to the waypoint list.

Editing a route waypoint

To edit a waypoint:

1. In the Set menu, scroll to Routes and short press *Enter*. The Route list is displayed.
2. Select a route with the arrow buttons and short press *Enter*. The waypoint list opens and the first waypoint is displayed in reversed color.
3. Select a waypoint with the arrow buttons and short press *Enter*. The waypoint menu is displayed.
4. Scroll to *Edit* with the arrow buttons and short press *Enter*.
5. The attributes of the waypoint are activated. Choose the order number of the waypoint in the waypoint list and change the attributes of the coordinates with the arrow buttons and short press *Enter* to accept the changes. Press *Stop/Cancel* if you want to return to the waypoint list without accepting changes.

6. Long press *Enter* to accept the changes and return to the main menu.

My Points

The *My Points* function stores up to 50 individual waypoints in the Suunto M9i memory that are not affixed to a route. For creating, viewing and editing *My Points*, refer to section 3.6.4 Routes.

***NOTE:** When creating routes or waypoints in the Suunto M9i, the unit names them with current date and time.*

3.6.5 Race

When you select *Race* in the Set menu, Suunto M9i switches to the Racing mode. For more information on the Racing mode, see section 3.7.

To select the Racing mode:

1. In the Set menu, scroll to Race and short press *Enter*. The *On/Off* selection is activated.
2. Change the setting to *On* with the arrow buttons and short press *Enter*. The Racing mode is activated.

3.7 RACING MODE

The Racing mode is a main mode reserved for racing functions, and can only be activated in the Sailing and Navigation modes. The main display of the Racing mode changes according to the race situation.

3.7.1 Main Display

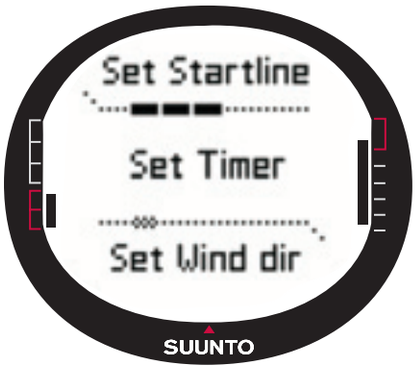
Before starting the race, Suunto M9i asks you to set the parameters for the start line, race timer and wind direction.

Before the parameters have been set in the Function menu, the following is displayed:

Set Startline: The first row prompts to set the start line.

Set Timer: The second row prompts to synchronize the timer.

Set Wind dir: The third row prompts to save the wind direction.



NOTE: *When the Navigation is on, an indicator is displayed on the left side of the lower horizontal dot line of the display.*

To set the parameters in the Function menu, short press *Enter* in the Racing mode's main display. (For information on the Function menu before the race, see section 3.8.)

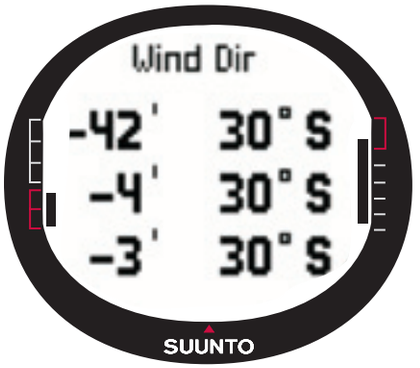
After you have set the parameters, the following is displayed:

Distance to start line (dsl): The first row displays the distance to the start line.

Timer: The second row displays the time left to the start.

Time to start line (tsl): The third row displays the time left to cross the start line based on current speed, and heading.

The Info display shows the line bias (wind deviation from the perpendicular line to the start line) with corresponding time (minutes) before start and favorable side of the line. P means wind is biased to port side and S means starboard.



Press *Start/data* to access info display.

Press *Start/data*, *Enter* or Stop/cancel to return to main display.

Main Display During the Race

After the start timer reaches zero, the timing starts automatically and Suunto M9i enters the main display after start, the following is displayed:

Heading: The first row displays the vessel's heading in degrees.

Speed: The second row displays the vessel's current speed in knots.

Shortcuts: The third row displays alternatively the race timer, the tacking angle difference or the average speed. Change the displayed information with *Stop/Cancel*. You can select a shortcut from the Racing Data display to replace the average speed.

- **Race Timer:** Displays the time from the start of the race.
- **Tacking Angle Difference (TAD):** Displays the vessel's tacking angle difference.
- **Average speed:** Displays the vessel's average speed in the selected unit.

Racing data display

The Sailing, Navigation and Racing modes have special information displays that you can access from the main displays of the respective modes. During the race, the Racing data display contains statistics about the race.

To view the Racing data display:

1. Press *Start/Data* in the Racing mode's main display to access the Racing data display.
   The following data is displayed:
   - Average speed (avg)
   - Maximum speed (max)
   - Velocity made on course (vmc)
   - Velocity against wind (vaw)
   - Distance to waypoint (dtw)
   - Distance to finish (dtf)
   - Distance made on course (dmc)

- Distance made good (dmg)
- Estimated time of arrival (eta)
- Estimated time enroute (ete)
- Time of sunrise (tsr)
- Time of sunset (tss)
- Distance to lay line (dll)
- Time to lay line (tll)

2. Scroll the data with the arrow buttons and short press *Enter* to select a shortcut. You return to the Racing display. Press *Stop/Cancel* to return to the Racing display without selecting a shortcut.

Main Display After the Race (Race summary)

When the race ends and the user confirms the finish line from the Function menu, Suunto M9i displays the following information:

Distance from start: The first row displays the distance from the start

Total distance: The second row displays the distance sailed during the race in nautical miles.

Shortcuts: The third row displays either average speed or the timer. To switch between these, *short* press *Stop/Cancel*.

Average speed: Average speed during the race in knots.

Timer: Time sailed in the race.

3.7.2 Function Menu

Function menu before the race

The Racing mode has a unique Function menu that you can access by short pressing *Enter*. The contents of this menu adapt to the situation in the race. The following options are available before the race has started:

GPS

The GPS function allows you to turn the GPS on or off and to examine the accuracy of the GPS readings.

To turn the GPS on or off:

1. In the Function menu, scroll to *GPS* with the arrow buttons and short press *Enter*.

2. Change the status to *On* or *Off* with the arrow buttons and short press *Enter*. The GPS is now set.

NOTE: *GPS is set on automatically 15 minutes prior to start.*

Course

The Suunto M9i allows to load 10 different race courses into the memory. These courses have the unique ability to store the same waypoint (buoy) several times, into the waypoint list.

If exact buoy positions are not known, updating the location of a certain buoy also updates all the same buoys in the waypoint list. This is helpful when going around the buoys multiple times. The Suunto M9i can thus calculate layline and other information related to the buoys once their exact location has first been updated (see Suunto Sail Manager Help).

The user can select a course from the Suunto M9i memory.

To select a course:

1. In the Function menu, scroll to *Course* with the Arrow buttons and short press *Enter*.
2. Select a course with the arrow buttons and short press *Enter*.

Synchronizing or starting the timer

To synchronize or to start the timer:

NOTE: *The timer starts running when enter is pressed and the unit enters the function mode.*

1. In the Function menu, scroll to *Timer sync* and short press *Enter*. The time field is activated.
2. Change the time with the arrow buttons and short press *Enter*. The message "TIMER SYNCHRONIZED" is displayed and you return to the Function menu.

The timer will show the time from the instant when enter was pressed to enter the function mode.

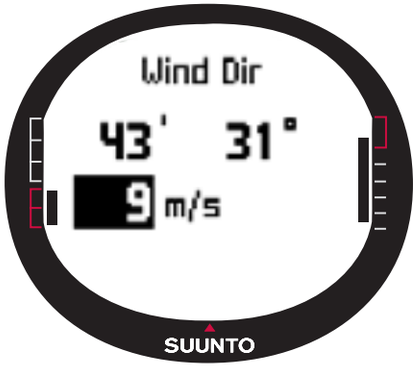
NOTE: *Selecting, for example, 120.00 sets the countdown to 120 minutes. The start timer sounds an alarm every ten minutes between 120 and 60 minutes. Between 60 and 15 minutes the alarm sounds every five minutes. Between 15 and 1 minute the alarm sounds every minute. The alarm sounds every 10 seconds during the last minute. The alarm sounds every second during the last ten seconds.*

Start line

You can set the locations of the start line buoys and line direction. This information enables Suunto M9i to determine the line bias and calculate the time left to the start line. You can either set both buoys or a single buoy and the line direction.

To set the start line parameters with two buoys:

1. Sail to the first buoy and short press *Enter* in the Racing mode's main display. Buoy location is now stored in the temporary memory.
2. Scroll to *Startline* and short press *Enter*.
3. Scroll to either *Buoy S* or *Buoy P* and short press *Enter* to confirm selection. The text "BUOY STORED" is displayed. *Stop/Cancel* erases buoy location and returns back to the main mode.
4. Sail to the second buoy and short press *Enter* in the Racing mode's main display. The second buoy location is now stored in the temporary memory.
5. Scroll to *Startline* and short press *Enter*.
6. Scroll to either *Buoy S* or *Buoy P* and short press *Enter*. The text "*buoy stored*" is displayed. The start line is now set, and you return to the Function menu. Suunto M9i begins to display the distance to the start line.



To set the start line information with one buoy and line direction:

1. Sail to the buoy and short press *Enter* in the Racing mode's main display.
2. Scroll to *Startline* and short press *Enter*. The buoy location is now stored in the temporary memory.
3. Scroll to either *Buoy S* or *Buoy P* and short press *Enter* to confirm selection. The unit goes back to the main mode.
4. The start line direction is calculated from the compass reading of the unit. Sail along the start line and align the unit with the line. Short press *Enter* to store the compass bearing into the temporary memory.
5. Scroll to *LineDir* with the arrow buttons and short press *Enter*. The degree field is activated.
6. The start line is now set.

WINDdir

The WINDdir function allows you to record the wind direction and force.

To record the wind direction:

1. Point the Suunto M9i to the wind and keep it level. Short press *Enter* and keep the unit to the wind and level for 2 seconds. The WINDdir is stored to the temporary memory.
2. Scroll to *Wind Dir* and short press *Enter*.
   The following information is displayed:
   - Sailing Timer
   - Line Bias
   - Wind force
3. If you wish to change the wind force, change the value with the arrow buttons and short press *Enter*. The text "WIND DIR STORED" is displayed. You return to the Racing mode's main display.

NOTE: *The wind directions can be observed in the information display by pressing Start/data.*

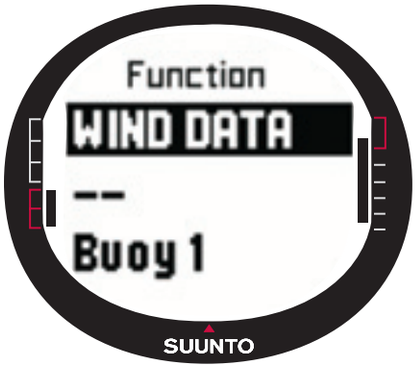
NOTE: *The wind force is measured in zones of 0-3, 3-6, 6-9, 9-12, 12-15, 15-18 and*

18- meters per second or the equivalent in knots. Wind strength unit is set up in the Suunto Sail Manager software.

Function menu during the race

During the race, the Function menu allows you to record the locations of the turn buoys, set tack headings for tacking angle difference measurement, store and view wind directions and store MOB location.

Wind Data



The Wind Data function displays the recorded wind directions.

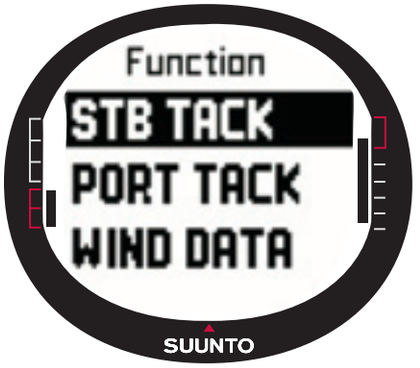
To view the wind data:

1. In the Function menu, scroll to *Wind Data* and short press *Enter*. The Wind Data is displayed.
2. Scroll the wind directions with the arrow buttons. Short press *Enter* to return to the Function menu.

NOTE: *Before race start, the wind direction is the line bias (angle between the wind and the perpendicular line to the start line). After race start, wind direction displays geographic wind direction (derived from unit's compass sensor)*

Starboard/Port Tack

The Starboard/Port Tack function allows you to set the reference heading for tacking angle difference measurement (TAD).



1. Short press *Enter* in the Racing mode's main display to access the Function menu. The unit stores the current heading in the temporary memory.
2. Scroll to *STB TACK/PORT TACK* and short press *Enter*. The tacking angle is recorded. The TAD measurement is based on reference heading stored. The message "STB/PORT TACK SET" is displayed.

Turn Buoy

The turn buoy function allows you to update the correct the locations of the turn buoys during the race.

To record the turn buoys:

1. Sail to the first buoy. Short press *Enter* in the Racing mode's main display to access the Function menu. The unit stores the location in the temporary memory.
2. Scroll to *Turn buoy1* and short press *Enter*. The first buoy is recorded. The message "*buoy stored*" is displayed.
3. Sail to the next buoy. Suunto M9i suggests the following buoys automatically.
4. Record the location by short pressing *Enter*.
5. To record other than the suggested buoy, select the buoy with the arrow buttons and short press *Enter*.

NOTE: *Suunto M9i automatically suggests a buoy to be recorded when navigation is set to On. When you navigate to the Function menu, Turn buoy 1 is displayed in reversed color. After you have recorded the first buoy, Suunto M9i suggests you to record the next buoy (Turn buoy 2) and so on. Suunto M9i offers as many buoys as included in the race type.*

WINDDir

For more information on the *WINDDir* function, see section 3.8.5.

MOB

With this function you can record the location of Man Over Board situations.

(For more information on the MOB function, see section 3.8.2.)

Restart

Returns to the main display before race and prompts to reset the race timer for the next start, without reseting the start line buoys and wind data.

Finish line

Select the finish line function when the vessel passes the finish line and the race ends.

To mark the finish line:

1. In the Function menu, scroll to *Finishline* and short press *Enter*. The message "TIMER STOPPED" is displayed, and you automatically enter the race summary display.

3.8 FUNCTION MENU

To access the Function menu, short press *Enter* in any of the main displays. Pressing the *Enter* button records all the information needed for the functions in the functions menu. The information is time, date, barometer pressure, temperature, compass heading, GPS location. When using the various functions, the Suunto M9i keeps the necessary information to complete the function and discards the rest.

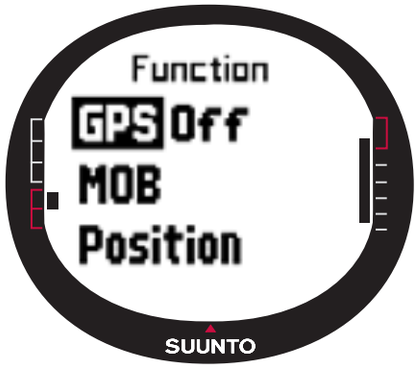
3.8.1 GPS

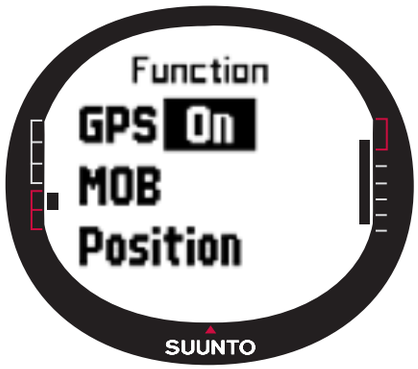
The GPS function allows you to turn the GPS on or off and to examine the accuracy of the GPS readings.

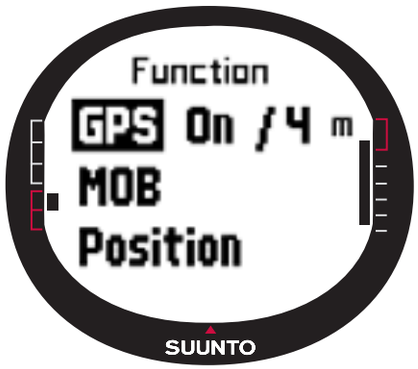
To turn the GPS on or off:

1. In the Function menu, scroll to *GPS* with the arrow buttons and short press *Enter*.
2. Change the status to *on* or *off* with the arrow buttons and short press *Enter*. The GPS function indicator appears on the main display.

NOTE: *The GPS On status displays EPE (Estimated Position Error) after the On annotaion. Refer to position display for more information on EPE).*







3.8.2 MOB

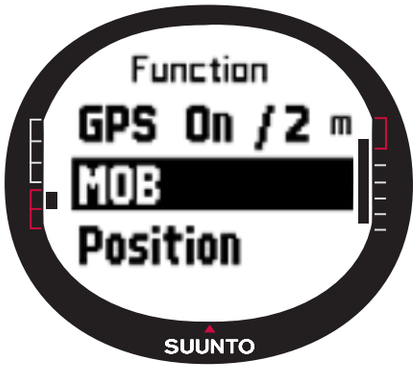
The Man Over Board, or MOB function records the location where the MOB situation took place. After the location point has been recorded, Suunto M9i begins displaying the bearing and the distance to the location.

The MOB display shows the following:

MOB: The first row displays the identifier of the MOB function.

Distance: The second row displays the distance to the MOB location in the unit of your choice.

Bearing: The third row displays the bearing to the MOB location in degrees.



Activating the MOB function

To activate the MOB function:

1. The MOB location is recorded by short pressing enter in any of the main modes. If the GPS is not on the GPS is first activated after selecting the MOB. In this case MOB location is recorded after the GPS makes its first fix. In the Function menu, scroll to MOB and short press *Enter*. The bearing and distance to the MOB location are displayed.
2. If you wish to exit and stop the MOB function, press *Stop/Cancel* and scroll to *Shut Down*. Press *Enter* and you return to the main display.
3. If you wish to exit and keep the MOB function active, press *Stop/Cancel* and scroll to *Keep Active*. Press *Enter* and you return to the main display.

NOTE: *If the GPS is not on when you activate the MOB function, the GPS is automatically turned on and the text "ACTIVATING GPS" is displayed before entering the MOB menu.*

NOTE: *Shutting down the MOB function erases the location recorded earlier. Keeping MOB active keeps the MOB location in the units memory until the function is shut down.*

NOTE: *Suunto G9 uses the GPS for guidance when you are moving. When standing still, the direction to the marked position is indicated by the compass bearing.*

MOB Data display

The MOB function has a special information display that contains the coordinates and the recording time of the location point being tracked.

To view the MOB data display:

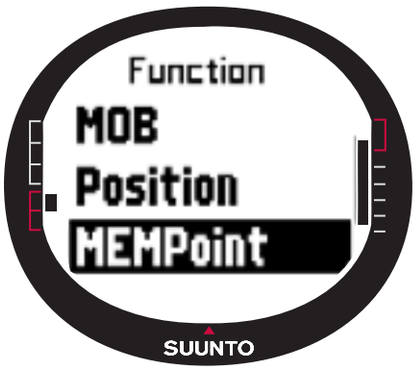
1. Short press *Start/Data* to enter the MOB Data display in the MOB display.
2. Short press *Stop/Cancel* to exit the MOB Data display.

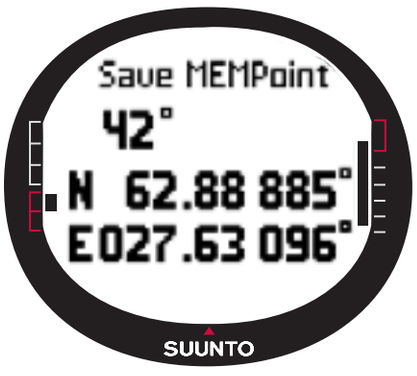
3.8.3 Memory Point

The Memory point function records the coordinates and all other sensor data of the current location.

To store a memory point press *Enter* in the main mode. The current data is recorded in the temporary memory:

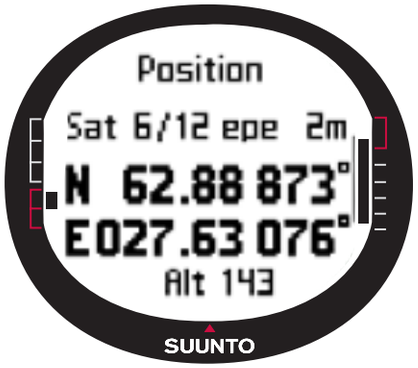
1. In the Function menu, scroll to *MEMpoint* and short press *Enter*. The coordinates and the heading are displayed.
2. Short press *Enter* to store the location. All other sensor data is stored as well. The message "MEMPOINT STORED" is displayed and you return to the main display.
3. Short press *Stop/Cancel* to return to the function menu without storing the location.





NOTE: *Make sure the GPS is turned on before using the Memory point function. Activating the Memory point function does not activate the GPS.*

NOTE: *The memory points can be viewed only in the Suunto Sail Manager software.*



3.8.4 Position

The Position function allows you to view the current position on the display.

To view the position:

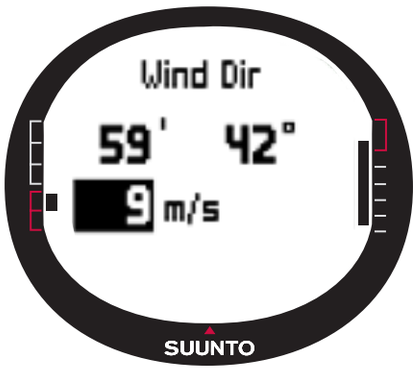
1. In the Function menu, scroll to *Position* and short press *Enter*. The following information is displayed:

- **Sat:** The first number is the number of satellites used in fix and the second is the number of visible satellites.
- **Epe:** Estimated position error of the GPS reading.
- **Coordinates of the position fix**
- **Current altitude**

2. *Start/Data* toggles between altitude and time to first fix.
3. Press *Stop/Cancel* to return to the main display.

NOTE: *Make sure the GPS is turned on before using the Position function. If the GPS is not on when you enter the Position menu, the coordinates of the last GPS fix are displayed.*

NOTE: *The position coordinates are updated as the instrument's position changes.*



3.8.5 WINDdir

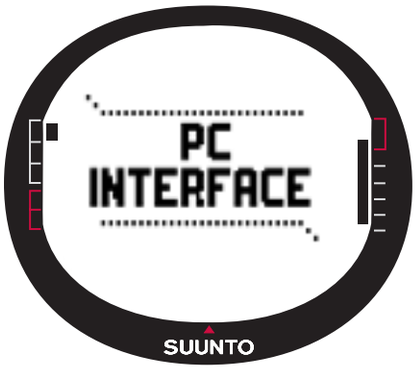
The WINDDir function allows you to record the wind direction and force.

To record the wind direction:

1. In the Function menu, scroll to *Wind Dir*, point the Suunto M9i to the wind and keep it level. Short press *Enter* and keep the unit to the wind and level for 2 seconds. The following information is displayed:
   - **Timer:** When not racing, the Timer displays 0.00.
   - **Heading:** Wind geographic heading
   - **Wind force**
2. If you wish to change the wind force, change the value with the arrow buttons and press *Enter*. The message "*Wind Dir stored*" is displayed and you then return to the main display.

4. ADDITIONAL FEATURES

4.1 PC INTERFACE



With the PC Interface you can transfer information between Suunto M9i and your computer. The information can be either routes stored in the Suunto M9i memory, tracks recorded with the tracking function or waypoints. When the data has been transferred, you can easily organize, view and add related information in it with the Suunto Sail Manager software.

The PC Interface cable and the Suunto Sail Manager software are delivered in the same package with your Suunto M9i. The installation instructions for the software can be found on the cover of the Suunto Sail Manager CD-ROM.

The PC interface allows the use of the ARCS electronic charts. The ARCS (Admiralty Raster Chart Service) charts are manufactured by the United Kingdom Hydrographic Office, UKHO. Check your local dealer for the availability of the ARCS products.

NOTE: *When purchasing ARCS charts you must have your user permit and PIN code available in order to register for the use of the chart. The user permit and PIN code is provided in the Suunto M9i sales package.*

4.1.1 PC software installation

1. Insert the Sail Manager CD into your CD-ROM drive **before** plugging in the USB-cable.
2. As the setup main menu appears, select installation of the Sail Manager SW.
3. When you plug in the USB-cable, the drivers are already in the system and Windows should find them automatically.
4. If Windows however asks for drivers, they can be found on the Sail Manager CD.

4.1.2 Transferring Data

To transfer data:

1. Make sure your computer has a free USB port.
2. Attach the data clip firmly to your Suunto M9i and connect the USB cable to your PC. Suunto M9i enters the PC interface mode automatically.
3. Open Suunto Sail Manager.
4. Click to open the Suunto M9i panel from the bottom left corner of the display. Click

connect to download the contents list and display them in a tree view in the Suunto M9i panel.
5. To transfer data between the Suunto M9i and the Suunto Sail Manager, select an item and drag it to the destination folder.
6. When a confirm dialog appears, click to start downloading.
7. When you have transferred the files to your PC, you can delete them from the Suunto M9i memory with Suunto Sail Manager and make room for new log files.

For further information, see the Suunto Sail Manager Help in the Help menu.

4.2 SUUNTO SAIL MANAGER

The Suunto Sail Manager software is included in your Suunto M9i package on a CD-ROM. The instructions for installing the software are displayed on the cover of the CD.

The latest version of the Suunto Sail Manager can always be downloaded from www.suunto.com. Please check for updates regularly as new features are developed continuously.

4.2.1 Suunto Sail Manager Feature

- Tracks:
  View tracks on chart or a list of track points, edit track-related information, sort tracks in folders and upload tracks to suuntosports.com.
- Routes:
  Create new routes, edit existing routes, view routes on chart, sort routes in folders and upload routes to Suunto M9i or suuntosports.com.
- My Points:
  Add, edit and view underwater rocks, shallow rocks, visible rocks, anchors, flags and waypoints. You can also download these from suuntosports.com.
- Boat:
  Keep track of useful information related to your boat(s) and view the logbook related to each one.
- Charts: View, zoom and pan charts, install new charts or update old charts.
- M9i: Modify Suunto M9i settings and clear the Suunto M9i memory to make room for new data.

4.2.2 Changing the Suunto M9i Settings

Click the M9i panel on the bottom left corner of the display. The Suunto M9i settings tab will open in the center of the display. After modifying the following settings click update wristop.

- Clock (12h, 24h)
- Date (mm.dd, dd.mm)
- Altitude (m, ft)
- Temperature (C, F)
- Pressure (hPa, inHg)
- Distance (km, mi, nm)
- Short Distance (n/a, m, ft, yd)
- Speed (km/h, m/s, mph, kt)
- Wind unit (m/s, kt)
- Position (deg, dm)
- Info (off, on)
- Tones (off, on)
- Datum (WGS84 etc.)
- UTC Offset

Select the correct time zone in relation to Greenwich time.

- Fixrate

Define how often the Suunto M9i displays updates of GPS-related information. You can set different fixrate for normal and race use.

- Log interval

Every x:th fix is saved in the Suunto M9i memory. You can set different log intervals for normal and race use.

- UKHO Information, Pin code and User Permit

The values are saved in the Suunto M9i and cannot be edited. The information is needed when purchasing ARCS charts.

4.3 WWW.SUUNTOSPORTS.COM

Suuntosports.com is an international free Web community where you can refine and share the data that you have measured with your personal Suunto instrument and analyzed with the sport-specific PC interface. Suuntosports.com offers you a number of features that help you to get the most out of your sport and your Suunto M9i.

If you already own a personal Suunto sports instrument you can access all sport-specific functions through registration. If you do not have an instrument yet, you may either log in as a guest or register yourself. As a guest you can view and read, but registration gives you the right to use other functions and participate to discussions.

4.3.1 System Requirements

Suuntosports.com has the following system requirements:

- Internet Connection
- Modem: recommended 56k or faster
- Browser: IE 4.0 or better, Netscape 4.7x or newer
- Resolution: minimum 800 x 600, best viewed with 1024 x 768

4.3.2 Suuntosports.com Sections

Suuntosports.com includes three sections all of which have several functions. The following paragraphs describe only the basic functions of suuntosports.com. You can find detailed descriptions of all the site functions and activities and step-by-step instructions for using them in the site Help. The Help is available on each page and its icon is located on the right side of the bar that divides the screen. The Help is frequently updated as the site develops.

Suuntosports.com offers several possibilities for searching the information on the website. In addition to the free search, you can search, for example, for groups, users, resorts, logs and sports.

The information published on the suuntosports.com contains internal links so that you do not always have to search for the information from the very beginning. For example, if you view a resort description, you can follow the links and view the personal information of the one who sent the resort information and the logs related to the resort if the sender has made this information public.

My Suunto

This section is meant for your personal information. You can store information about yourself, your wristop computer, your sailing activities, etc. When you upload your personal logs to suuntosports.com with Suunto Sail Manager, they are displayed in your personal information but not shown to anybody else. In My Suunto you can also manage the logs and decide whether they can be published within communities or presented to all suuntosports.com users.

When you have uploaded logs to suuntosports.com. You can also publish your logs and compare them with other users' logs.

The section also contains a personal calendar that you can use to mark personal events or practice information. The training diary can be filled with facts about your training and development, training locations and other useful information.

Communities

In the Communities section, suuntosports.com users can form and manage their own groups or search for other groups. For example, you can create a group for all your sailor friends, and share information about each other's results, give advice and discuss, where and when you could go for a sailing trip together. Groups can be either open or closed. Closed groups mean that you have to apply for membership and be accepted before you can participate in group activities.

All groups have a home page that displays information about group events and includes sections for news, notice board and other information. Group members can also use group-specific bulletin boards, chat rooms and group calendars, and add links and create group activities. All registered suuntosports.com users are automatically members of the World of Suuntosports.com community.

All logs can be viewed with track visualizer where the different participants of a community may observe their sailed tracks on a single chart.

Sport Forums

Suuntosports.com has its own forum for each Suunto sport. The basic features and functions are the same for all sport forums - sport-specific news, bulletin boards and chat rooms. Users can also suggest links to sports-related websites and tips regarding the sport and equipment to be published on the website. They can also publish their own travel reports.

Sport forums include presentations of the sport-related resorts. Users can rank the resorts and comment on them, and the results are published next to the resort information. You can also create ranking lists for other things - for example, where is the highest peak, what group has most members, who has uploaded most logs, and so on.

Getting Started

To join the suuntosports.com community, connect to the Internet, open your Web browser and go to http://www.suuntosports.com. When the opening page appears, click the *Register* icon and register yourself and your Suunto sports instrument. You can change and update your personal and equipment profiles in the My Suunto section afterwards.

After the registration you will automatically enter the *suuntosports.com home page* that introduces the site structure and functional principles.

NOTE: *Suuntosports.com is continuously developed further and its content is subject to change.*

5. TECHNICAL SPECIFICATIONS

General

- Operating temperature –20 °C to +60 °C/-5 °F to +140 °F
- Storage temperature –30 °C to +60 °C/-22 °F to +140 °F
- Weight 76g
- Water resistant to 10 bar (ISO 2281 standard)
- Mineral crystal glass
- Rechargeable battery
- PC interface with a USB connector

Charger

- Universal 110-240 V charger with changeable mains plugs

Memory

- 50 routes (10 race routes)
- 500 waypoints

Barometer

- Display range 300 to 1100 hPa / 8.90 to 32.40 inHg
- Resolution 1hPa / 0.05 inHg

Thermometer

- Display range –20°C to +60°C/ –5°F to +140°F
- Resolution 1°C / 1°F

Compass

- Resolution 1°

GPS

- Resolution 1m / 3 ft
- 12 channels

6. GPS DATUM LISTING

Suunto M9i offers the use of several different GPS datums that can be activated with the Suunto Sail Manager software with the help of the PC interface. There is a list of the available GPS datums and the number codes used in the activation process below. For information about activating GPS datums, refer to Suunto Sail Manager.

For information about setting the correct GPS datum, see section 3.2.7 Units.

Number	Name	Description
000	ADI-M	Mean Solution (Ethiopian and Sudan)
001	ADI-E	Burkina Faso
002	ADI-F	Cameroon
003	ADI-A	Ethiopia
004	ADI-C	Mali
005	ADI-D	Senegal
006	ADI-B	Sudan
007	AFG	Somalia
008	ARF-A	Botswana
009	ARF-H	Burundi
010	ARF-B	Lesotho
011	ARF-C	Malawi
012	ARF-D	Swaziland
013	ARF-E	Zaire
014	ARF-F	Zambia
015	ARF-G	Zimbabwe
016	ARS-M	Mean Solution (Kenya and Tanzania)
017	ARS-A	Kenya
019	PHA	Djibouti
020	BID	Guinea-Bissau
021	CAP	South Africa
022	CGE	Tunisia

023	DAL	Guinea
024	EUR-F	Egypt
025	EUR-T	Tunisia
026	LEH	Ghana
027	LIB	Liberia
028	MAS	Eritrea
029	MER	Morocco
030	MIN-A	Cameroon
031	MIN-B	Nigeria
032	MPO	Gabon
033	NSD	Algeria
034	OEG	Old Egypt
035	PTB	Mean Solution (Burkina Faso and Niger)
036	PTN	Congo
037	SCK	Namibia
038	SRL	Sierra Leone
039	VOR	Algeria
040	AIN-A	Bahrain Island
041	AIN-B	Saudi Arabia
042	BAT	Sumatra
043	EUR-H	Iran
044	HKD	Hong Kong
045	HTN	Taiwan
046	IND-B	Bangladesh
047	IND-I	India and Nepal
048	INF-A	Thailand
049	ING-A	Vietnam
050	ING-B	Con Son Island (Vietnam)
051	INH-A1	Thailand (1997)

052	IDN	Indonesia
053	KAN	Sri Lanka
054	KEA	West Malaysia and Singapore
055	KGS	Korean Geodetic System
056	NAH-A	Masirah Island (Oman)
057	NAH-B	United Arab Emirates
058	NAH-C	Saudi Arabia
059	FAH	Oman
060	QAT	Qatar
061	SOA	Singapore
062	TIL	Brunei and East Malaysia (Sarawak and Sabah)
063	TOY-M	Mean Solution (Japan, Okinawa and South Korea
064	TOY-A	Japan
065	TOY-C	Okinawa
066	TOY-B	South Korea
067	AUA	Australia and Tasmania (Australian Geodetic 1966)
068	AUG	Australia and Tasmania (Australian Geodetic 1984)
069	EST	Estonia
070	EUR-M	Mean Solution (Europe 1950)
071	EUR-A	Western Europe (1950)
072	EUR-E	Cyprus
073	EUR-G	England, Channel Islands, Scotland and Shetland Islands
074	EUR-K	England, Ireland, Scotland and Shetland Islands
075	EUR-B	Greece
076	EUR-I	Italy (Sardinia)
077	EUR-J	Italy (Sicily)
078	EUR-L	Malta
079	EUR-C	Finland and Norway
080	EUR-D	Portugal and Spain

081	EUS	Mean Solution (European 1979)
082	HJO	Iceland
083	IRL	Ireland
084	OGB-M	Mean Solution (England, Isle of Man, Scotland, Shetland Islands and Wales)
085	OGB-A	England
086	OGB-B	England, Isle of Man and Wales
087	OGB-C	Scotland and Shetland Islands
088	OGB-D	Wales
089	MOD	Sardinia
090	SPK-A	Hungary
091	SPK-B	Poland
092	SPK-C	Czechoslovakia
093	SPK-D	Latvia
094	SPK-E	Kazakhstan
095	SPK-F	Albania
096	SPK-G	Romania
097	CCD	Czechoslovakia
098	CAC	Mean Solution (Florida and Bahamas
099	NAS-C	Mean Solution (CONUS)
100	NAS-B	Western USA
101	NAS-A	Eastern USA
102	NAS-D	Alaska (excluding Aleutian islands)
103	NAS-V	Aleutian islands (East of 180deg W)
104	NAS-W	Aleutian islands (West of 180deg W)
105	NAS-Q	Bahamas (excluding San Salvador Island)
106	NAS-R	San Salvador Island
107	NAS-E	Canada Mean Solution (including Newfoundland)
108	NAS-F	Alberta and British Columbia
109	NAS-G	Eastern Canada

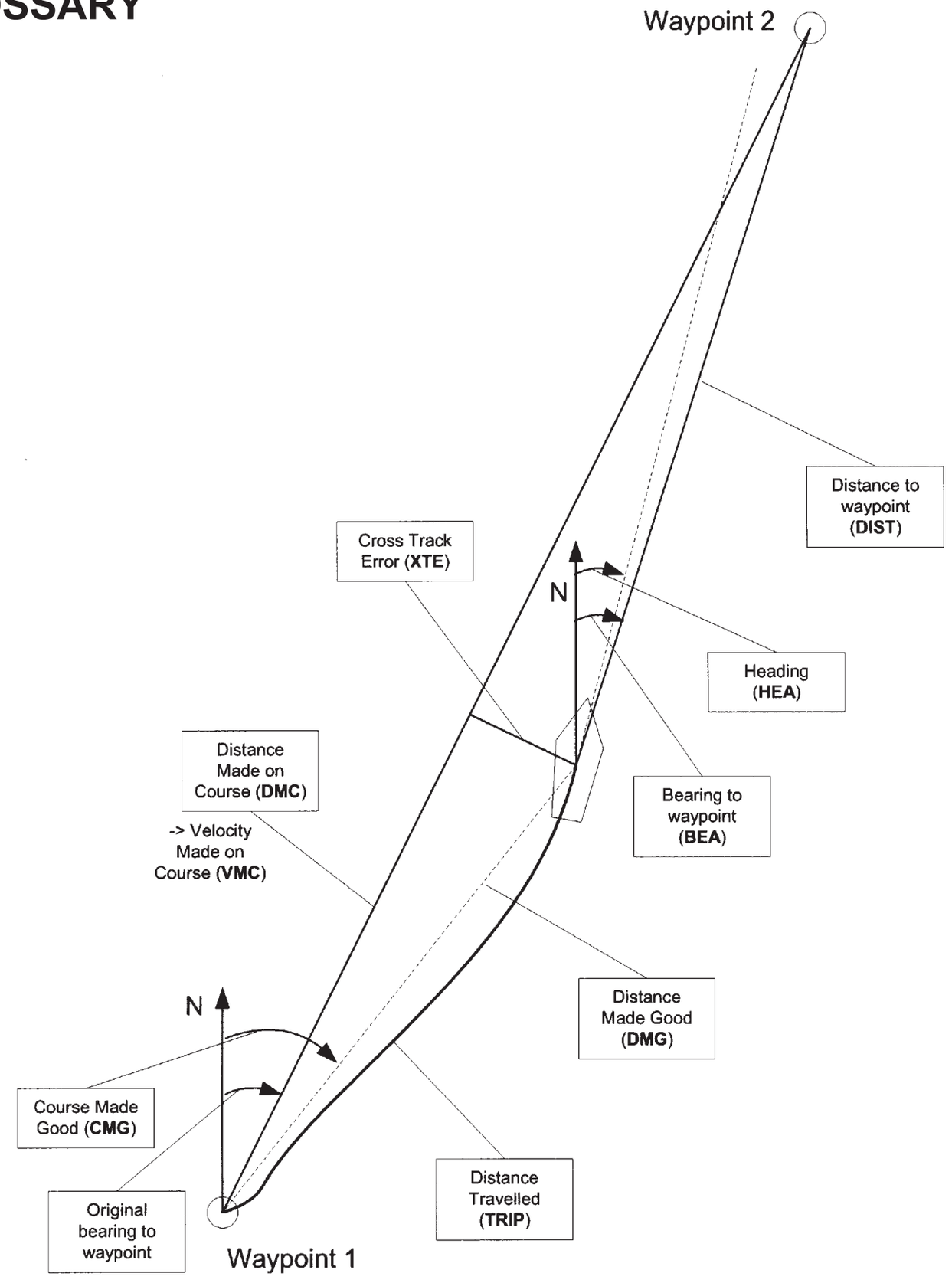
110	NAS-H	Manitoba and Ontario
111	NAS-I	NW Territories and Saskatchewan
112	NAS-J	Yukon
113	NAS-O	Canal Zone
114	NAS-P	Caribbean
115	NAS-N	Central America
116	NAS-T	Cuba
117	NAS-U	Greenland (Hayes Peninsula)
118	NAS-L	Mexico
119	NAR-A	Alaska (excluding Aleutian Islands)
120	NAR-E	Aleutian Islands
121	NAR-B	Canada
122	NAR-C	CONUS
123	NAR-H	Hawaii
124	NAR-D	Mexico and Central America
125	BOO	Columbia
126	CAI	Argentina
127	CHU	Paraguay
128	COA	Brazil
129	PRP-M	Mean Solution (Bolivia, Chile, Columbia, Ecuador, Guyana, Peru and Venezuela)
130	PRP-A	Bolivia
131	PRP-B	Northern Chile (near 19deg S)
132	PRP-C	Southern Chile (near 43deg S)
133	PRP-D	Colombia
134	PRP-E	Ecuador
135	PRP-F	Guyana
136	PRP-G	Peru
137	PRP-H	Venezuela
138	HIT	Southern Chile (near 53deg S)

139	SAN-M	Mean Solution
140	SAN-A	Argentina
141	SAN-B	Bolivia
142	SAN-C	Brazil
143	SAN-D	Chile
144	SAN-E	Colombia
145	SAN-F	Ecuador (excluding Galapagos Islands)
146	SAN-J	Baltra, Galapagos Islands
147	SAN-G	Guyana
148	SAN-H	Paraguay
149	SAN-I	Peru
150	SAN-K	Trinidad and Tobago
151	SAN-L	Venezuela
152	ZAN	Suriname
153	AIA	Antigua, Leeward Islands
154	ASC	Ascension Island
155	SHB	St. Helena Island
156	BER	Bermuda Islands
157	DID	Deception Island, Antarctica
158	FOT	Nevis, St. Kitts, Leeward Islands
159	GRA	Faial, Graciosa, Pico, Sao Jorge and Terceira Islands (Azores)
160	ISG	South Georgia Islands
161	LCF	Cayman Brac Island
162	ASM	Montserrat, Leeward Islands
163	NAP	Trinidad and Tobago
164	FLO	Corvo and Flores Islands (Azores)
165	PLN	Canary Islands
166	POS	Porto Santo and Maderira Islands
167	PUR	Puerto Rico and Virgin Islands

168	QUO	South Greenland
169	SAO	Sao Miguel, Santa Maria Islands (Azores)
170	SAP	East Falkland Island
171	SGM	Salvage Islands
172	TDC	Tristan Da Cunha
173	ANO	Cocos Islands
174	GAA	Republic of Maldives
175	IST	Diego Garcia
176	KEG	Kerguelen Island
177	MIK	Mahe Island
178	REU	Mascarene Island
179	AMA	American Samoa Islands
180	ATF	Iwo Jima
181	TRN	Tern Island
182	ASQ	Marcus Island
183	IBE	Efate and Erromango Islands
184	CAO	Phoenix Islands
185	CHI	Chatham Islands (New Zealand)
186	GIZ	Gizo Island (New Georgia Islands)
187	EAS	Easter Islands
188	GEO	New Zealand
189	GUA	Guam
190	DOB	Guadalcanal Island
191	JOH	Johnston Island
192	KUS	Caroline Islands, Fed.States of Micronesia
193	LUZ-A	Philippines (excluding Mindanao Island)
194	LUZ-B	Mindanao Island
195	MID	Midway Islands
196	OHA-M	Mean Solution (Old Hawaiian)

197	OHA-A	Hawaii
198	OHA-B	Kauai
199	OHA-C	Maui
200	OHA-D	Oahu
201	PIT	Pitcairn Islands
202	SAE	Espirito Santo Island
203	MVS	Viti Levu Ísland (Fiji Islands)
204	ENW	Marshall Islands
205	WAK	Wake Atoll
206	BUR	Bungka and Belitung Islands
207	CAZ	Camp McMurdo Area, Antarctica
208	EUR-S	Iraq, Israel, Jordan, Lebanon, S. Arabia and Syria
209	GSE	Kalimantan (Indonesia)
210	HEN	Afghanistan
211	HER	Former Yugoslavia
212	IND-P	Pakistan
213	PUK	Russia
214	TAN	Madagascar
215	VOI	Tunisia/Algeria
216	VOI-2	Tunisia/Algeria
217	YAC	Uruguay
218	RT90	Sweden
254	KKJ	Kartta Koordinaatisto Järjestelmä, Finland
255	WGS84	Global WGS84 coordinate system

7. GLOSSARY


Waypoint 2
Distance to waypoint (DIST)
Cross Track Error (XTE)
N
Heading (HEA)
Distance Made on Course (DMC)
-> Velocity Made on Course (VMC)
Bearing to waypoint (BEA)
N
Distance Made Good (DMG)
Course Made Good (CMG)
Distance Travelled (TRIP)
Original bearing to waypoint
Waypoint 1

Bearing (bea)	The compass direction from your current location to a destination.
Course	A selected route between two locations, not necessarily a straight line.
Course Made Good (cmg)	Heading from the starting point to the current location.
Cross Track Error (xte)	Aberration from the selected course towards the destination in degrees.
Distance from start (dfs)	Distance from the start point.
Distance Made Good (dmg)	The distance traveled on a straight line from the starting point towards the destination.
Distance Made on Course (dmc)	The distance traveled on the chosen course towards the destination.
Distance to lay line (dll)	Distance to the optimal line towards a waypoint.
Distance to finish (dtf)	Distance to the finish line.
Distance to start line (dsl)	Distance to start line.
Estimated Time of Arrival (eta)	The estimated time of day when you will reach your destination based on the current velocity.
Estimated Time Enroute (ete)	The estimated travel time to your current destination based on the current velocity and heading.

Global Positioning System (GPS)	A satellite tracking system.
Heading (hea)	Compass direction on the present course.
Knots (kt	Velocity in nautical miles per hour.
Latitude	Angular distance North or South of the Equator.
Lay line	Optimal line towards a waypoint based on the wind direction.
Longitude	Angular distance West or East of the prime meridian.
Nautical Mile	One nautical mile equals 1852 meters.
Navigation	Traveling between two locations on a route with knowledge of the current location in relation to the route.
Position	Exact map coordinates of a given location.
Tack	Direction of the vessel in relation to the wind.
Tack angle difference (tad)	A change in the tack angle caused by the wind.
Time to Lay line (ttl)	Time to reach an optimal line towards a waypoint.
Time to Start line (tsl)	Time to reach the start line based on the current velocity and location.
Time of Sunrise (tsr)	Estimated time to sunrise based on a GPS fix.

Time of Sunset (tss)	Estimated time to sunset based on a GPS fix.
Time to Waypoint (ttw)	Estimated time to the next waypoint based on current velocity and location.
Velocity Made Good (vmg)	Effective velocity towards the wind.
Velocity Made on Course (vmc)	Velocity on the course to the current destination.
Waypoint	Location coordinates on a course recorded in the Suunto M9i memory.
Wind shift	Course change due to wind in degrees.

8. USER'S RESPONSIBILITY

Do not use Suunto M9i as the only navigation aid. Use all available navigation aids such as charts, compass, visual sightings etc. and compare them with the Suunto M9i navigation information. Make sure all conflicting information is resolved before continuing with navigation.

This instrument is intended for recreational use only. Do not use this instrument for obtaining measurements that require professional or industrial precision.

9. COPYRIGHT AND TRADEMARK NOTICE

This publication and its contents are proprietary to Suunto Oy and are intended solely for the use of its clients to obtain knowledge and key information regarding the operation of Suunto M9i products. Its contents shall not be used or distributed for any other purpose and/or otherwise communicated, disclosed or reproduced without the prior written consent of Suunto Oy. Suunto, Suunto M9is and their logos are all registered or unregistered trademarks of Suunto Oy. All rights are reserved. While we have taken

great care to ensure that information contained in this documentation is both comprehensive and accurate, no warranty of accuracy is expressed or implied. Its content is subject to change at any time without notice. You can always download the latest version of this documentation in www.suunto.com.

9. 1 PATENT NOTICE

This product is protected by following patents and patent applications: US 6,549,850, US 6,650,282, US pat. appl. no. 09/769,851 and corresponding non US patents and applications.

10. CE

The CE mark is used to mark conformity with the European Union EMC directives 89/336/EEC and 99/5/EEC.

11. LIMITS OF LIABILITY AND ISO 9001 COMPLIANCE

If this product should fail due to defects in materials or workmanship, Suunto Oy will, at its sole option, repair or replace it with new or rebuilt parts, free of charge, for two (2) years from the date of its purchase. This warranty is extended only to the original purchaser and only covers failures due to defects in materials and workmanship that occur during normal use while in the period of the warranty. It does not cover battery, battery replacement, damage or failures resulting in accident, misuse, neglect, mishandling, alteration or modifications of the product, or any failure caused by operation of the product outside the scope of its published specifications, or any causes not covered by this warranty. There are no express warranties except as listed above. The client can exercise the right to repair under the warranty by contacting Suunto Oy's Customer Service department to obtain a repair authorization. Suunto Oy and its subsidiaries shall in no event be liable for any incidental or consequential damages arising from the use of or inability to use the product. Suunto Oy and its subsidiaries do not assume any responsibility for losses or claims by third parties that may arise through the use of this device. Suunto's Quality Assurance System is certified by Det Norske Veritas to be ISO 9001 compliant in all SUUNTO Oy's operations (Quality Certificate No. 96- HEL-AQ-220).

12. AFTER SALES SERVICE

If a claim under warranty appears to be necessary, return the product, freight prepaid, to your Suunto dealer who is responsible for having your product repaired or replaced. Include your name, address, proof of purchase and/or service registration card, as required in your country. The claim will be honored and the product repaired or replaced at no charge and returned in what your Suunto dealer determines a reasonable amount of time, provided that all necessary parts are in stock. All repairs that are not covered under the terms of this warranty will be made at the owner's expense.

This warranty is non-transferable from the original owner. If it is not possible to contact your Suunto dealer, contact your local Suunto distributor for further information. You can locate your local Suunto distributor in www.suunto.com.

12.1 ONLINE WARRANTY REGISTRATION

Suunto’s dive computers and wristop computers can be registered online at www.suunto.com.

With our new online warranty registration service, we've removed the need for paperwork and trips to the mailbox by making it possible to register your Suunto device online, in real time, either in the store when you buy it, or later at home. Registering your unit makes it quicker and easier for us to help you if you ever need to send your product for servicing, or if you need information about using your unit from our Global Help Desk. By typing in your device's serial number, our help desk and service professionals can find all the information required to give you the best possible service.Registration will also make it possible for us to contact you in case we have important safety information concerning your Suunto product.

13. DISCLAIMER

Since the GPS satellites and the delivery system are neither owned nor maintained by Suunto, Suunto takes no responsibility for possible malfunctions, changes in positioning quality or the discontinuity of the GPS service in the future. Suunto will not reclaim products because of changes in the GPS service. This device complies with Part 15 of the FCC limits for class B digital devices. This equipment generates, uses, and can radiate radio frequency energy and, if not installed or used in accordance with the instructions may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular instance. If this equipment does cause harmful interference to other equipment, try to correct the problem by relocating the equipment. Consult an authorized Suunto dealer or other qualified service technician if the problem cannot be corrected. Operation is subject to the following conditions: (1) This device cannot cause harmful interference, and, (2) this device must accept any interference received, including interference that may cause undesired operation. Repairs should be made by authorized Suunto service personnel. Unauthorized repairs will void warranty.

WARNING

Read this manual. Carefully read this User's manual in its entirety paying attention to all the warnings listed below. Make sure you understand the use, displays and limitations of this instrument before utilizing it.

WARNING

Do not use Suunto M9i as the only navigation aid. Use all available navigation aids such as charts, compass, visual sightings etc. and compare them with the Suunto M9i navigation information. Make sure all conflicting information is resolved before continuing with navigation.

WARNING

This instrument is intended for recreational use only. Do not use this instrument for obtaining measurements that require professional or industrial precision.

14. DISPOSAL OF THE DEVICE

Please dispose of the device in an appropriate way, treating it as electronic waste. Do not throw it in the garbage. If you wish, you may return the device to your nearest Suunto representative.

COPYRIGHT

This publication and its contents are proprietary to Suunto Oy.

Suunto, Wristop Computer, Suunto M9i, Replacing Luck and their logos
are registered or unregistered trademarks of Suunto Oy. All rights reserved.

While we have taken great care to ensure that information contained
in this documentation is both comprehensive and accurate,
no warranty of accuracy is expressed or implied.
Its content is subject to change at any time without notice.

www.suunto.com

© Suunto Oy 10/2002, 12/2005